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Response to Public Comments

Environmental Impact Statement &
Environmental Impact Report
for the proposed

Mesquite Regional Landfill

Imperial County, California

SCH. No. 92051024
BLM No. CA-060-02-5440-10-B026

Prepared by the
Bureau of Land Management
California Desert District

and the
County of Imperial
Planning & Building Department

Environmental Consultant
The Butler Roach Group, Inc.
San Diego, California

June 1995

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VOLUME II

RESPONSES TO PUBLIC COMMENTS

for the proposed

MESQUITE REGIONAL LANDFILL

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JUNE 1995

FOREWORD

This volume of the Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Proposed Mesquite Regional Landfill Project presents the comment letters that were received during the 90-day public comment period on the Draft EIS/EIR for the Proposed Mesquite Regional Landfill Project. The comment letters are arranged such that letters received from federal, state, and local agencies appear first, followed by letters from the general public, including individuals and organizations. Public comments given at the May 25, 1994 El Centro and May 26, 1994 Indio public hearings on the Draft EIS/EIR follow the letters from the general public. The Sierra Club, San Diego Chapter, provided an attachment to their comment letter. This attachment is included in its entirety at the end of this volume.

The comments contained in each comment letter were identified and numbered along the right-hand margin of the comment letter. The numbered comments run from 1 through 827. Responses to each comment appear to the left of the comment, in a side-by-side format, for ease of review by the reader. Many of the comments received are repetitive in nature and substance. In order to avoid repetition and reduce the volume of paper, repetitive comments are referred to the first appropriate response to that comment by the phrase "Please see response to Comment No." This phrase is followed by a number between 1 and 827, which corresponds to the number assigned to the appropriate response to that comment (e.g., Please see response to Comment No. 110 refers the reader to the response to the comment labeled 110).

Following this page is an index of comment letters received, indicating the range of comment numbers assigned to each letter, and the page number in this volume where each comment letter can be found. The index is followed by the comment letters and the responses to those letters.

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State of California

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California Environmental
Protection Agency

Memorandum

To : Mark Goss
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

Date: July 6, 1994

Jurg Heuberger
Imperial County Planning/Building Department
939 Main Street
El Centro, California 92243

Thomas Zale
Bureau of Land Management
1661 South 4th Street
El Centro, California 92243

From:

Douglas Okumura
Deputy Director
Permitting & Enforcement Division
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Subject: SCH #92051024 - Draft Environmental Impact Report (DEIR)/Environmental Impact Statement for the establishment and operation of the Mesquite Regional Landfill, requiring issuance of a Solid Waste Facilities Permit (SWFP) No. 13-AA-0026, Imperial County.

California Integrated Waste Management Board (CIWMB/Board) staff have reviewed the DEIR for the project cited above. Included in the CIWMB's mandates are the following: to ensure that solid waste facilities are designed and operated in an environmentally sound manner which protects human health and the environment in accordance with applicable laws [Public Resources Code (PRC) Section 40052]; to oversee local jurisdictions achievement of the waste diversion mandates of 25% by 1995 and 50% by 2000 (PRC Sections 40001, 40051, and 41780); and that local jurisdictions project 15-years of waste disposal capacity (PRC Sections 41260 and 41460). In keeping with the complementary mandates, Board staff from both the Permitting & Enforcement Division, and the Governmental & Regulatory Affairs Division prepared comments included in this memorandum. Please address the comments, found after the project description, in the Final Environmental Impact Report (FEIR)/Environmental Impact Statement.

PROJECT DESCRIPTION

Gold Fields Mining Corporation, Western Waste Industries, and Southern Pacific Environmental Systems have entered into an agreement to permit and begin development of a new regional landfill in eastern Imperial County to be serviced by rail-haul from communities in Southern California. The Mesquite Regional Landfill (MRL) is a proposed Class III non-hazardous municipal solid waste (MSW) disposal site to be located next to the Mesquite Gold Mine and Ore Processing Facility (mine) primarily on the site of the existing Mesquite Mine located north of Highway 78, approximately 20 miles west of the Colorado River/Arizona border, and approximately 20 miles north of the Mexico/U.S. border. The proposed landfill site is comprised of approximately 4,250 acres of private and public land in portions of Sections 7, 8, 15, 16, 17, 18, 19, 20, and 21, and Tract 38 of Township 13 South, Range 19 East, San Bernardino Meridian, of which, 2,290 acres would be actual landfill footprint. Under the Federal Land Policy and Management Act, about 1,750 acres of Bureau of Land Management (BLM) lands would be transferred to/exchanged for 2,241.96 acres of land owned by Arid Operations, Inc. (project proponent).

The estimated daily MSW residue volumes that would be accepted at the MRL would be 4,000 tons per day (tpd) for Year 1 of operations, increasing up to 20,000 tpd after year 7 at full scale operations. The estimated daily number of trains that would be required would be one train during Year 1, increasing to five trains after Year 7. A new four- to five-mile railroad spur extension from the existing Southern Pacific Transportation Company (SP) Main Line track to the landfill site and construction of an intermodal off-loading facility, a water reclamation facility and ancillary facilities are inclusive in the proposed action. Phased landfill closure is also proposed as part of the MRL project. The site will employ approximately 268 people, have a capacity of approximately 600 million tons of MSW, and is expected to operate for approximately 100 years.

Alternatives to the proposed action include: 1) The required No Action Alternative, 2) A Smaller Landfill Footprint, 3) Reduced Daily Volumes, Alternative MSL Site approximately 3.75 miles southeast of Glamis and 1.75 miles south of SR 78, east of the SP Main Line, and 4) a Larger Proposed Project in size and daily volume.

California Environmental Quality Act Review

California Environmental Quality Act (CEQA) compliance is required for the establishment, expansion, or change in operation(s) of a Solid Waste Facility (SWF) requiring the

issuance or revision of a SWFP. California Environmental Quality Act (CEQA), Article 10 Section 15151 of CEQA states:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences.

In order that a DEIR be considered adequate by the CIWMB staff for use in drafting a revised SWFP the potential significant and/or adverse environmental impacts associated with the project's implementation must be identified clearly in the Environmental Assessment/Initial Study. Article 9, Section 15126 of the CEQA Guidelines states:

> Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.

PERMITTING & ENFORCEMENT DIVISION CONCERNS

Following is a list of concerns of the Permitting & Enforcement Division, Permits Branch, Environmental Review Section staff that were either not included, not assessed, or not fully described in the DEIR which should be addressed in the FEIR:

Future Daily Cover Alternatives

Page 2-25 indicates that the project proponent may use alternative cover material such as foam. The Draft EIR states:

> In the future, daily cover could also consist of foams or synthetic materials that are presently undergoing development and testing for this purpose. Future environmental analysis may be required before alternative cover materials could be used.

1 If project related air emission offsets are implemented, CIWMB staff recommend that the project proponent consider a pilot or demonstration program to determine the feasibility of composting agricultural plant material at the MRL and the use of the biologically reduced plant material as an alternative daily cover material or for erosion control.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, SIGNED BY DOUGLAS OKUMURA, DEPUTY DIRECTOR, PERMITTING & ENFORCEMENT DIVISION, INTEGRATED WASTE MANAGEMENT BOARD, DATED JULY 6, 1994.

Response to Comment No. 1

Comment noted. Should the Applicant decide to pursue offsets by diverting agricultural material from burning, the County would require the Applicant to provide information on alternative methods of diversion, including a description of the ultimate disposal/reuse of the agricultural material. If the Applicant decides to pursue composting and subsequent reuse at a site not currently permitted for such uses, the landfill CUP would have to be modified or a new CUP issued by the County. The County would conduct the necessary environmental review and provide the resulting CEQA document to the LEA and CIWMB for their consideration in modifying the Solid Waste Facilities Permit to include composting.

Excavation for Installation of the Base Liner

2 Will the soils beneath the leach pads and the leach pad collection ponds be tested for cyanide, metals and pH during excavation for installation of the landfill base liner?

Energy Recovery & Landfill Gas Enhancement

3 Future focused environmental review of energy recovery and landfill gas enhancement and recovery operations at the proposed MRL may be required by agencies issuing new or revising existing permits.

Board staff look forward to continued correspondence with the lead agency and project proponent regarding further project development.

Water Reclamation Facility

4 Will ground and surface water collected from the mining operations be processed at the proposed water reclamation facility? Will mining leach pad water contaminated with cyanide be processed at the proposed water reclamation facility?

5 Water high in soluble salts may be withdrawn from groundwater in the project area. Will the presence of high ionic concentrations in reclamation feedwater impede the wastewater treatment of leachate and landfill gas condensate?

6 Will sludge material be created from the wastewater reclamation process? If so, will sludge material at the water reclamation facility be tested/treated prior to landfilling at the MRL?

Site of Storage of Recyclable Materials

Page 2-36 states:

> The Applicant proposes that a maximum of 600,000 tons of recyclable material may be stored at any time....The storage would occur only within the undeveloped portions of the landfill footprint. The recyclable material would be separated and stored by type of material, and would be clearly marked and protected from the elements as necessary to assure there is no adverse impact to the environment. The specific storage location within the landfill footprint would vary as the landfill expands.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 2

A number of questions were received on the Draft EIS/EIR regarding the potential for cyanide contamination associated with the existing heap-leach pads and the proposed use of the heap-leach material as cover at the proposed landfill. All of these comments are answered here to provide more context than can be provided in individual answers to each comment. The responses to subsequent comments on this issue direct the reader to the following comprehensive response:

As discussed in various sections of the Draft EIS/EIR, the Mesquite Regional Landfill would utilize ore residue from the Mesquite Gold Mine heap leach pads as cover material for the MSW residue. Heap leaching is the primary process for recovery of gold from ore excavated at the Mesquite Mine. The excavated ore is piled onto leach pads (see Draft EIS/EIR Figure 1-2) which are underlain by a RWQCB-approved composite liner (similar to what would be used for the proposed regional landfill). Using a drip irrigation system, a dilute cyanide solution is allowed to trickle (or leach) through the ore (or heap as it is sometimes referred to) over a period of months. The cyanide dissolves gold into the solution as it leaches through the heap. The cyanide/gold solution is contained by the leach pad liner and allowed to flow out through pipes into a collection pond where it is transferred for processing to obtain the gold. The remaining ore after completion of this process is called ore residue.

Potential for Cyanide Contamination under the Leach Pad and Containment Ponds

A concern was raised about potential cyanide contamination under the leach pad and containment pond liner when they are removed as part of landfill expansion. Ongoing extensive vadose zone monitoring is performed by the Mesquite Mine under each of the leach pads. Many of these wells can be seen in Figure 3-12 of the Draft EIS/EIR. These monitoring activities have not indicated the presence of any cyanide leaks from the leach pad liners. As a result, no special testing is planned when the liners are removed. However, visual observation of the area under the liners will be performed as they are removed. If there is any evidence of past leakage, the soils in those locations will be tested using the same procedures and criteria as described in the Mesquite Mine WDR.

Response to Comment No. 2 (Cont'd)

Permeability of Heap-Leach Material

Ore residue would be used for portions of the 6- and 12-inch-thick daily and intermediate cover layers, stability berms at the landfill slopes, and as the foundation layer for the final cover at the top deck area of the proposed regional landfill. For each of these applications, the ore residue material would be compacted. Geotechnical testing of these materials indicates that the compacted ore residue will have a low permeability on the order of 10^{-5} cm/sec or less.

The reason that such low-permeability material can be heap leached for gold extraction (as described above) is because it is initially agglomerated, using lime and moisture to attach fine particles to larger pieces of crushed ore. This allows the ore to behave like a sand or gravel during leaching and rinsing. The process of extracting the material from the heap leach pads and compacting it for landfill-related uses would cause the agglomerate to be broken down.

Mesquite Mine Studies

Prior to the initiation of full-scale mining at the Mesquite Mine in 1985, the RWQCB raised many of the same concerns raised by commentors to the Mesquite Regional Landfill Draft EIS/EIR regarding the potential effects of cyanide and metals in the heap leach ore residue. This was especially important because Gold Fields Mining Co. (Gold Fields) proposed that, after rinsing, the residue would satisfy a Group C waste designation according to CCR 23, Chapter 15, Section 2571.

Group C materials are those from which any discharge would be in compliance with the RWQCB's Water Quality Control Plan, without the need for liners or special containment features. With this criteria, the ore residue could be abandoned in place (without the need for covering), removed from the lined leach pads for use as construction material or disposed in an unlined area.

To establish the Group C designation, including concerns for increased concentrations of cyanide due to preferential leach pathways (or blinding), larger-scale (e.g., 10,000 tons) pilot tests were conducted prior to issuance of the RWQCB's WDRs for the full-scale mining project. These pilot test piles were leached and rinsed using procedures comparable to

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 2 (Cont'd)

those planned for the full-scale heap leaching process. The piles were then sampled with closely-spaced borings to assure that rinsing requirements prepared for the WDRs could be consistently satisfied. In addition, representative samples were collected for conducting geochemical analyses and bioassay tests to show that the materials were not hazardous. Results of these tests (St. Clair Research Systems, Inc., 1984)(1) show that the residue satisfies the Group C designation criteria (including metals concentrations) and would not pose a threat to the environment. As a result, the material could be used as construction material or disposed without liners or covers. The pilot-scale activities also were used by the RWQCB staff to specify the analysis procedures to be contained in the WDR for verifying that free cyanide concentration levels are satisfied before any leach pad is abandoned.

Subsequent to the initiation of mining activities, Gold Fields undertook several additional investigations to verify that uniform leaching, without blinding, was being achieved at the full-scale heap leaching piles. The first of these activities included routine performance of inventory analyses to compare the gold in ore placed within each portion of a pile to the amount of gold recovered by the leaching process. The inventory activity has consistently shown that uniform leaching is being achieved. Gold Fields has confirmed the uniformity of the leaching by drilling closely-spaced borings in leached ore to measure remaining gold content and cyanide concentrations. Those tests have further confirmed that uniform leaching does occur throughout the piles and there have been no indication of unusual metals or cyanide solution accumulation. These field pilot- and full-scale observations indicate that rinsing of the agglomerated ore should also occur uniformly so that concentrated zones of unrinsed leaching solution are not expected. If there are any minor preferential zones, the rinsate water would be expected to follow the same pathways as the leach solution, without the potential for concentrated, unrinsed zones.

(1) St. Clair Research Systems, Inc. *Waste Notification Form: Leached Ore Residue from Mesquite Gold Mining and Ore Processing Project, 1984.*

Response to Comment No. 2 (Cont'd)

Impacts to Landfill Workers and the Public from Cyanide Gas

As part of preparation of the Report of Waste Discharge Application for the WDR permit for the proposed regional landfill, RWQCB staff has requested that the Applicant provide analyses to show that the rinsed ore will not create a risk to workers or the environment due to the small amount of residual cyanide after rinsing. Impacts to workers could conceivably occur if high concentrations of cyanide were to remain in the ore as it is being excavated or placed, and that cyanide were to form an HCN gas within the workers' breathing zone. To be of harm, such an exposure would have to be large enough to cause an immediate acute effect since cyanide at small concentrations is not harmful and does not bioaccumulate in the body. Low cyanide levels are present in foods that we eat each day, such as lima beans and certain fruit juices. These levels are not harmful to the body. The potential for harmful cyanide levels to occur in connection with the proposed landfill's use of the ore residue does not exist based on the following tests and observations at the Mesquite Mine heap leach pads.

In 1990, Gold Fields Operating Company (GFOC) - Mesquite performed ambient HCN monitoring as part of an Air Toxics Inventory Report (ATIR) in response to requirements of California Assembly Bill 2588 (AB 2588). A summary of the results of this monitoring was submitted to the Imperial County Air Pollution Control District in April 1991 (Environmental Solutions, Inc., 1991)(2).

Ambient HCN monitoring was performed using 14 caustic trap sampling devices on nine separate occasions during October and November 1990, at locations upwind, downwind, and immediately above the Mesquite Mine heap leach pads. This monitoring was conducted on leach pads where active leaching was occurring (i.e., the dilute cyanide solution was being released into the ore). As a "worst-case" example, the pH tested was below normal (higher pH levels assure lower emissions potential) and the cyanide solution concentrations were higher than normal. Monitoring was conducted during a variety of daytime, nighttime, and high and low wind speed conditions. Samples were taken at different heights from the leach pads, ranging from 0.25 to 20 feet above the surface. The results of this

(2) Environmental Solutions, Inc. *Addendum AB 2588 Air Toxics Inventory Report, Hydrocyanic Acid Emissions from Heap Leaching Operations*, April 1991.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 2 (Cont'd)

sampling indicated that the average concentrations of HCN at or above a height of 2.5 feet above the leach pads were less than the method detection limit of approximately 0.05 ppm. Ambient HCN results for nine separate sampling events are summarized in the table below:

SUMMARY OF AMBIENT HCN SAMPLING RESULTS

SAMPLER POSITION	SAMPLE HEIGHT (feet)	NUMBER OF SAMPLES	HCN CONCENTRATIONS (ppm)		
			Minimum	Average(3)	Maximum
Upwind of Leach Pad	5.0	9	BDL (4)	~0.03	0.05
Top of Leach Pad	0.25	12	BDL	~0.11	0.20
	2.5	12	BDL	~0.04	0.05
	5.0	30	BDL	~0.05	0.24
	7.5	3	BDL	BDL	BDL
	10.0	9	BDL	~0.05	0.19
	15.0	6	BDL	BDL	BDL
	20.0	6	BDL	BDL	BDL
Downwind of Leach Pad	5.0	27	BDL	~0.04	0.15
Background	5.0	9	BDL	BDL	BDL

The results of the monitoring program were utilized to extrapolate representative estimates of ambient HCN emissions from the surface of the heap leach pads. The calculations are based on the following characteristics of HCN emissions:

- The ambient HCN emissions are proportional to the water evaporation rate from the heap leaching operations.
- The measured HCN concentration at the surface of the heap leach pads is approximately equivalent to the vapor pressure of the solution applied to the leach pads.

(3) Approximate average HCN concentration was calculated using one-half the detection limit for samples in which HCN was below the detection limit.

(4) BDL = Below detection limit (Approximately 0.05 ppm, based on collection of 180-liter sample. Detection limit varied with actual sample volume.)

Response to Comment No. 2 (Cont'd)

The ambient HCN sampling results were compared to the following standards to determine whether a potential health risk to GFOC personnel or the general public exists:

- 4.7 ppm for 15 minutes during an 8-hour day established by the National Institute for Occupational Safety and Health (NIOSH, 1990).(5)
- 3,300 $\mu g/m^3$, one-hour average established by the California Department of Health Services (DHS) for the California Air Pollution Control Officer's Association (CAPCOA, 1990).(6)

The sampling results show that HCN concentrations immediately above the leach pads are at least one order of magnitude below the acceptable exposure levels for both sets of guidelines, and therefore workers are not exposed to unacceptable conditions. Exposure rates at public access locations (i.e., downwind of the leach pad) are usually below detectable levels and related potential health risks are insignificant. The HCN results in the table above are actually less than the level of cyanide present in some foods. For instance, cyanide levels in lima beans have been measured at 3 mg/g. This is 100,000 times the amount of cyanide that workers on active heap leach piles are exposed to according to the above results.

The risk of harmful HCN emissions to landfill workers and the public would be even lower than those to mine personnel because:

- Active application of cyanide-bearing solutions to the work area will have ceased long before any leach pad ore residue is used for the proposed landfill. This would eliminate the primary and most significant source of HCN emissions (i.e., active cyanide applications) present during the 1990 tests.
- The ore piles will have been "rested" for periods of at least two years, and usually longer, to allow for natural attenuation of residual cyanides prior to and after rinsing in accordance with WDR requirements (see Attachment 1).

(5) National Institute for Occupational Safety and Health (NIOSH). *NIOSH Pocket Guide to Chemical Hazards*, June 1990.

(6) California Air Pollution Control Officer's Association (CAPCOA). *Air Toxics "Hot Spots" Program Risk Assessment Guidelines*, July 1990.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 2 (Cont'd)

- The ore residue will have been rinsed in accordance with RWQCB standards to remove residual cyanide.

Additional empirical evidence that HCN gas emissions are not a threat results from observations of conditions when, as part of mine operations, dozers are used to rip the top 6 feet of the leached ore piles between the placement of fresh ore lifts. There never has been any indication of noticeable cyanide gas odors or measurements by health and safety HCN monitoring for individual operators during this activity, even though the ore had not yet been rinsed.

Potential for Cyanide Contamination in Storm Water Runoff

The environment could be adversely affected if cyanide concentrations in ore residue used for landfill cover soil leached into rainfall runoff at concentrations that could be harmful to downstream wildlife. Original classification of the residue as Group C material indicates that this condition will not occur. Further, as discussed in Section 2.1.4.2 of the Draft EIS/EIR, surface runoff from the landfill would not flow to any permanent surface water streams or water bodies. Instead, it just flows several miles to the Algodones Sand Dunes which form a topographic high causing the water to evaporate or infiltrate.

Confirmatory calculations performed for the Draft Report of Waste Discharge (Environmental Solutions, Inc., 1993) show that, even from very conservative assumptions regarding the potential for free cyanide to be in the ore residue used for cover, the maximum concentration which could conceivably be in rainfall runoff would be on the order of 0.0004 mg/L. This is more than two orders of magnitude less than the most conservative drinking water standard being considered for cyanide (U.S. Health Services, 1962; U.S. EPA, 1986).

The risk of potential ground water contamination from any remaining cyanide in the ore residue is insignificant for the following reasons:

- The residue will satisfy Group C material characteristics.
- Infiltration of the low amount of rainfall at the site is not expected as discussed in Section 3.1.8 of the Draft EIS/EIR.

Response to Comment No. 2 (Cont'd)

- The proposed landfill is designed with a complete leachate collection and recovery system as discussed in Section 2.1.7 of the Draft EIS/EIR.

Potential for Acid-Generating Characteristics

Finally, the ore residue used would not have acid-generating characteristics. The majority of the ore tested for the initial Mine WDR in 1985 was oxidized. During the past several years, some less-oxidized material from deep portions of the pits was excavated and processed. Tests conducted by Gold Fields, and submitted to the RWQCB show that even this material does not have acid-generating characteristics.

Response to Comment No. 3

Comment noted. Table 1-3 in the Draft EIS/EIR disclosed this information.

Response to Comment No. 4

The CUP for the proposed landfill includes a condition that the proposed water reclamation facility would only treat water derived from operation of the landfill, and it would not treat surface or groundwater collected from mining operations or mining leach pad water contaminated with cyanide.

Response to Comment No. 5

An on-site Water Reclamation Facility is planned to treat water from the Container/Truck Wash Facility, as well as leachate, and LFG condensate. Section 2.1.14 of the Draft Environmental Impact Statement/ Environmental Impact Report (Draft EIS/EIR) discusses this facility. Figure 2-34 shows a conceptual flow diagram. As shown, to control the total dissolved solids (TDS) in the recovered water, a bleed of high TDS water would be directed to an evaporation pond. The water removed from the treatment circuit by the bleed to the evaporation pond would be replaced with clean, low-TDS water from a Reverse Osmosis (RO) Plant (see Draft EIS/EIR Figure 2-8). The recovered water and clean water would be combined in the reclaimed water tank.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 6

Certain types of sludges would be created in the wastewater reclamation process. These sludges would accumulate at the bottom of the aeration/biodegradation pond and high TDS evaporation pond. The sludges would be removed periodically to allow these ponds to operate effectively. The sludges would be tested, and based on their chemical characteristics, they would either be landfilled at the proposed Mesquite Regional Landfill or removed off-site and treated, or disposed of in accordance with state and federal laws. Though almost all hazardous wastes would be removed from the waste stream prior to disposal, a hazardous wastes generators license would be obtained by the landfill to handle small quantities of hazardous materials, potentially including these sludges.

These recyclable materials were identified as paper, plastic, aluminum, recyclable metals, and other recyclable materials as identified by the CIWMB. Page 4-12 of the Draft EIR indicates that the storage would occur in unlined portions of the landfill footprint and be limited in duration and volume.

7 What is the anticipated duration time for this storage?
What volumes would be subject to such storage?
How will runoff from this storage area be managed to prevent underlying and adjacent soils from sheet erosion?

Board staff look forward to continued correspondence with the lead agency regarding further project development related to recyclable materials storage that have yet to be identified by the Board which require subsequent environmental review.

Vectors

8 The Final EIR should indicate that mitigation measures for controlling on-site vectors be applied to MSW railcars and transport trucks. These transport vehicles should be operated in accordance with the terms and conditions of Title 14, Chapter 3, Sections 17312, 17331, 17341 and 17533. Mitigation measures associated with vectors should be included as a part of Table 1-2.

Odor

9 Board staff request that specific characteristics for chemical and physical suppressants for odor control, and emergency mitigation measures for odor control during any potential catastrophic event be briefly addressed in the FEIR.

Utilities

10 Board staff encourages the proposed use of water recycling techniques whenever possible to lessen the potential for impact on overdraft of regional water supplies. Please include a brief description of feasible water conservation measures for the project in the FEIR.

Significant Unavoidable Environmental Impacts

11 Considering that the proposed project is located in a "nonattainment" air basin; ROG, NO_x, O_3 and PM_{10} generation as a result of the implementation of the proposed project would result in a significant unmitigated impact without the securing of offsets for emissions of nonattainment pollutants and precursors of equal or greater reduction.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 7

As described on page 2-36 of the Draft EIS/EIR, the maximum storage period for these materials would be two years, or other time period specified in an agreement between The Applicant, the originating jurisdiction, the County of Imperial, and the California Integrated Waste Management Board. Up to 600,000 tons of recyclable material could be stored on-site at any one time. The storage period would apply to each individual shipment, not the entire 600,000 tons.

Recyclable materials would be covered and a drainage system, consisting of trenches and/or berms, would be provided around the perimeter of the recyclable storage area to protect underlying and adjacent soils from sheet erosion. This would serve to keep rain and runoff away from the materials and the storage area. The drainage system would be subject to review and approval by the LEA, RWQCB, and CIWMB or other appropriate agencies.

Response to Comment No. 8

Section 4.1.12.2 of the Draft EIS/EIR discusses control of vectors. As the text indicates, sorting procedures and vector control programs at the transfer stations/MRFs, compaction and up to ten hours of rail haul transfer would be expected to eliminate the threat of most, if not all, vectors that could be present in MSW residue. Any surviving vectors would be destroyed by the disposal procedures at the landfill working face, which would include further MSW residue compaction and burial by at least 6 inches of compacted daily cover at least once every 24 hours. The sorting and vector control programs at the transfer stations/MRFs, as noted above, would serve as a first control procedure for vectors. The containers would be enclosed to reduce access (or exit) by vectors during transportation to the landfill.

Table 1-2 is a list of required permits and is not the appropriate location for mitigation measures. The procedures described above are either performed by a party other than the Applicant (transfer station procedures) or part of normal landfilling operations. As a result, they do not qualify as mitigation measures. Placement of daily cover is, however, noted as a mitigation measure to control vectors in Section 4.1.12.3 of the Draft EIS/EIR.

Response to Comment No. 9

Chemical suppressants for odor control are not planned for the proposed Mesquite Regional Landfill. Proposed disposal procedures (see discussion in Section 2.1.4.1 of the Draft EIS/EIR) together with the placement of daily cover at least once every 24 hours is anticipated to reduce potential on-site MSW residue odors. During rail haul transport, odors would be minimized because the MSW residue would be enclosed in containers for the entire trip. The containers would have a vent at one end to allow air to enter the container during tipping at the landfill to facilitate container unloading. This vent would be closed during transit to the landfill so that substantial amounts of air would not be able to flow through the containers.

Nevertheless, changes in atmospheric pressure and container temperatures, as well as MSW residue decomposition would either pressurize or depressurize the containers. As a result, an additional vent would also be included on each container to allow the pressure inside the container to mirror the outside air pressure. Section 4.1.8.4 of the Draft EIS/EIR contains an analysis of potential odor impacts resulting from release of pressure from these vents on the container. The analysis concludes that odors from the containers would be in the parts per trillion range. As a result, the impacts due to odors along the rail haul route would be insignificant.

As is described in Section 4.1.8.4 of the Draft EIS/EIR, potential odors from containers would also be controlled by periodic washing of the containers at the landfill facility through use of high-pressure water sprays to clean residual MSW residue off inside walls.

As also described in Section 4.1.8.4 of the Draft EIS/EIR, in the event that a delay (due to catastrophic event or otherwise) does occur and a train was required to sit in the hot desert for 48 hours or more, the Applicant would provide a sufficient number of activated carbon filters to cover the pressure vents for as long as needed to assure that odorous air was treated to remove or neutralize the odorous compounds such that impacts to the surrounding area are insignificant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 10

As described in Section 2.1.14 of the Draft EIS/EIR, primary water use of the proposed landfill would include:

- Container/truck washing
- Dust control
- Soil compaction
- Equipment and facilities maintenance
- Sanitation

Water for these activities would be obtained from the existing Mesquite Mine well field approximately three miles south of the proposed site (see Final EIS/EIR Figure 1-2). To promote water conservation, the proposed landfill project includes a Water Reclamation Facility to allow for the reuse of water from the Container/Truck Wash Facilities, as well as for leachate and LFG condensate treatment. Process water from energy recovery systems (as appropriate) would also be recycled here. The recycled water would be returned to the Container/Truck Wash Facility or used for dust control (if possible). Water from the water reclamation facility could also be used in conjunction with the LFG enhancement pilot program and, if approved in the future, for a full-scale LFG enhancement program. These represent the highest water use activities for the proposed landfill. A flow diagram for the Water Reclamation Facility is shown in Figure 2-35 of the Draft EIS/EIR.

Response to Comment No. 11

Comment noted. The project would comply with ICAPCD Rule 207.1.

Page 4-115 of the DEIR states that "...the net effects of the Proposed Action would be mitigated so that no significant adverse air quality or odor impacts would occur..."..."The diversion of agricultural plant material that is currently burned and the transition in economic activity at the site from mining to landfilling would locally reduce both emissions and ambient concentrations, thereby preventing the occurrence of significant adverse air quality impacts."

CEQA Guidelines, Article 7, Section 15091(a), states:

"No public agency shall approve or carry out a project for which an EIR has been completed which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding."

The Air Pollution Control Districts New and Modified Stationary Source Review rule, approved in September 1993, allows for Emission Reduction Credit Banking to 'offset' proposed new or modified project emissions. Page 4-92 of the DEIR states that "Offset requirements of the [Imperial County Air Pollution Control District's] Rule 207 would be administered in accordance with ICAPCD Rule 207.1 ... by the Imperial County Air Pollution Control Officer." If 'offsets' are not attained and maintained by the project proponent; either new offsets must be acquired immediately, or, CEQA must be reevaluated to comply with Title 14, Section 15091(a)

12 The DEIR identified "Significant Unavoidable Environmental Impacts" which cannot be mitigated or avoided under the proposed projects' scenario as: 1) Cumulative impacts to the level of service of the traffic infrastructure on SR 78 during the period beginning the afternoon before and ending the morning after weekends and/or holidays from October 1st to May 31st, and 2) Visual resources pertaining to construction activities over a 100-year period and the corresponding construction of a permanent landform and the associated impact to the area's "visual character". These significant unavoidable environmental effects will require written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding identified as not being significant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 12

Comment noted.

Mitigation Reporting or Monitoring Program (MRMP)

13 As required by Public Resources Code Section 21081.6, the lead agency should submit a MRMP at the time of local adoption of the DEIR. This should identify the impacts associated with the proposed project, identify mitigation measures to reduce impacts to a less than significant level, identify agencies responsible for ensuring the implementation of the proposed mitigations, and identify a monitoring/tracking mechanism

CIWMB staff requests that a copy of the MRMP, adopted by the decision-making body of the lead agency, be sent to the Solid Waste Local Enforcement Agency (LEA) for Imperial County.

GOVERNMENTAL & REGULATORY AFFAIRS DIVISION CONCERNS

Following are the concerns of Governmental & Regulatory Affairs Division, Plan Implementation Branch staff that were either not included or not fully described in the DEIR which should be addressed in the FEIR.

The focus of this review has been on the sufficiency of the document in identifying and analyzing the possible impacts on the ability of the local jurisdictions to implement the Integrated Waste Management Act of 1989 (AB 939), and attain the diversion mandates of 25% by 1995 and 50% by 2000.

Because the proposed project may have significant impacts and effects on local government's ability to meet the mandates of AB 939, the CIWMB has authority under CEQA Guidelines [15125(b) and (c)] to address those impacts and effects. AB 939 requires local government agencies to achieve a 25 percent reduction of waste disposed at solid waste facilities by 1995 and a 50 percent reduction by 2000. To achieve a reduction of waste, local government agencies shall divert municipal solid waste through source reduction, recycling, and composting activities and programs.

The diversion programs selected by local government agencies are required to be consistent with the waste management hierarchy outlined in Public Resources Code (PRC) 40051. PRC 40051 requires the State and local agencies to promote waste management practices in order of priority: (1) source reduction; (2) recycling and composting; and (3) and the environmentally safe transformation and safe land disposal. In addition, the State and local agencies are to maximize the use of all feasible source reduction, recycling and composting options to reduce the amount

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 13

NEPA requires the Record of Decision, which is prepared after the 30 day public comment period on the Final EIS, include a mitigation monitoring and enforcement program for each mitigation measure (40 CFR §1505.2 subd.(c)).

CEQA provides that, when an agency approves a mitigated negative declaration or adopts findings committing itself to mitigation measures after preparing an EIR, the agency "shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment." The Mitigation Monitoring and Enforcement Reporting Program (MMRP) must "be designed to ensure compliance during project implementation." (Pub. Resources Code, § 21081.6, subd. (a).)

Section 21081.6 does not require that the lead agency circulate a proposed MMRP with the draft EIR for a project. Nor does section 21081.6 require the lead agency to circulate an MMRP with the final EIR the project.

In Christward Ministry v. County of San Diego (1993) 13 Cal.App.4th 31 [16 Cal.Rptr.2d 435], the Court upheld a mitigation monitoring and reporting program adopted in connection with an EIR for a proposed landfill expansion. The petitioner argued that the mitigation monitoring and reporting program should have been circulated to the public with the EIR. The Court of Appeal disagreed, stating:

> "The law clearly contemplates otherwise, for the mitigation monitoring program is required to be adopted '[w]hen making the findings required' (§ 21081.6), and those findings are made after considering the final EIR. (See § 21081; Guidelines, § 15091.) Nothing in CEQA or the Guidelines requires the mitigation monitoring plan to be in the EIR. (See § 21100; Guidelines §§ 15120-15132.)"
>
> (13 Cal.App.4th at 49 [16 Cal.Rptr.2d 435].)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 13 (Cont'd)

Although not required by NEPA or CEQA, the proposed MMRP has been sent to the LEA and others and will be made available for public review and comment prior to Planning Commission and Board of Supervisor public hearings. If the project is approved, the BLM will adopt the MMRP as part of the Record of Decision and the County of Imperial will adopt the MMRP at the time it adopts findings. A copy of the adopted MMRP will be sent to the LEA.

of solid waste that must be disposed of by transformation and land disposal.

Potential Impacts on Diversion

According to the Draft EIR:

> "the Mesquite Regional Landfill would not accept containers of MSW residue that has not been sorted and processed at transfer stations. In addition, the proposed landfill would not accept containers of MSW residue from transfer stations in communities that cannot demonstrate that they are in compliance with AB 939 waste diversion goals and recycling goals or that they are operating under a CIWMB exemption from these requirements." (pages 1-3 and 2-103)

14

Staff request additional explanation of how these restrictions would be implemented. If these provisions are meant to be mitigation measures, then more detail would be helpful.

The Whole Project

According to the Draft EIR:

> "The current total permitted capacity of Transfer Stations in Los Angles County is about 20,000 tons per day (tpd)" (pages 1-24 and 2-56); "MSW residue could be supplied by one of the many Transfer Station operating in Los Angles County" (page 1-3); and "Local Curbside-packer-truck traffic to new transfer stations and MRFs in Los Angeles County or other Southern California counties would not result in emissions that are related to the Proposed Action" (page 3-83).

Staff believes that by not thoroughly identifying and evaluating the Transfer Stations/Material Recovery Facility(s) (page 2-56) and the Related Railroad Facility at the City of Industry (Page 2-62) or Los Angeles Transportation Center (LATC) (pages 2-62 and 3-70), which are required to support the proposed landfill, the impacts of these facilities have not been fully addressed. The whole project has a potential for resulting in physical change in the environment by constructing and or operating the Transfer Stations/Material Recovery Facility(s) and the Related Railroad Facility needed to support the proposed landfill (CEQA Guidelines Sections 15165 and 15378). Staff request additional explanation of how these facilities would affect the environment.

15

Model Material Recovery Facility (MRF)

> The Model MRF to be opened in 1996 has only a 30% total recovery rate(pages 2-57 and 2-58), staff is concerned how local government agencies will achieve the 50% reduction in

16

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 14

These restrictions are not mitigation measures, they are proposed by the Applicant. It is anticipated that the details of these restrictions would be worked out with the Local Enforcement Agency and the California Integrated Waste Management Board as conditions of the Solid Waste Facility Permit. Options could include language in the MSW residue delivery contract with the originating jurisdiction that only MSW residue from permitted transfer stations/MRFs would be accepted; requirements that a letter of approval of the jurisdiction's Integrated Waste Management Plan, with subsequent CIWMB letters verifying compliance with the plan, be provided to the Applicant; requirements that a letter from the CIWMB exempting a jurisdiction from the requirements of AB 939 would be provided to the Applicant.

Response to Comment No. 15

Use of existing facilities that is consistent with their existing permits is ministerial and exempt from CEQA/NEPA review. These existing facilities currently impact local roads and neighboring land uses. Implementation of the proposed project would not substantially alter these existing impacts.

Attempting to analyze impacts of future transfer stations/MRFs that would be constructed with or without the proposed project would be speculative, and is not required in this EIS/EIR. There will be MSW and facilities to dispose of that MSW whether the proposed Mesquite Regional Landfill operates or not. Therefore, it is entirely appropriate to consider those MSW facilities wherever they may be at the time they are planned. At that time, a full environmental analysis can be completed.

Response to Comment No. 16

The Applicant does not propose to construct or operate MRFs as part of the proposed project. The Applicant would only accept MSW residue from transfer stations/MRFs that serve communities that are in compliance with AB 939 or are recognized by the CIWMB as making a good faith effort to comply with AB 939.

The Draft EIS/EIR discussed the operations of a model MRF that would meet the AB 939-mandated recovery rate of 30 percent by the year 1996. Please see response to Comment No. 15.

waste by 2000 if this model MRF is used by communities providing waste to the proposed landfill. Staff request additional explanation of how a Model MRF with a 30% total recovery rate would help jurisdictions achieve the 50% reduction in waste by 2000.

Recyclable Material Storage

17 The Mesquite Regional Landfill proposes to store a maximum of 600,000 tons of recyclable materials at the landfill for two years. Mesquite Regional Landfill may then landfill the recyclable material (page 2-36), if it is not removed from the landfill site for reuse or recycling. Staff requests explanation on how the landfilling of recyclable material will affect jurisdictions (that produced the recyclable materials) ability to achieve the 25% and 50% reduction mandate when the recyclables may be landfilled in two years.

Thank you for the opportunity to review this document. If you have any questions regarding comments provided by the Governmental and Regulatory Affairs Division, please contact Lorraine Van Kekerix at (916) 255-2670 or Barbara Baker at 255-2655. If you have any questions regarding comments pertaining to the Permitting and Enforcement Division, please contact John Loane at (916) 255-2654 or Vincent Paul at 255-2370.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

Response to Comment No. 17

The obligation to meet the diversion requirements of AB 939 rests primarily with cities and counties. Even if cities and counties meet these diversion requirements, additional landfill capacity will be required. The proposed project would provide landfill capacity for that portion of the solid waste stream that cannot be diverted.

The proposed project includes storage capacity for recyclable materials. A maximum of 600,000 tons of recyclable material may be stored at any one time. The materials could be stored only if the originating jurisdiction entered into an agreement with the Applicant and the CIWMB. This agreement would provide that the Applicant could be authorized to landfill the stored material if the jurisdiction does not remove it within the time limit set forth in the agreement.

If, under the terms of such an agreement, the Applicant landfilled the stored material, the ability of the jurisdiction to meet the diversion requirements of AB 939 could be affected. Under the terms of AB 939, the jurisdiction would be responsible for its failure to meet these requirements. This could include being precluded from disposing of MSW residue at the proposed Mesquite Regional Landfill if the CIWMB determines that the jurisdiction is not making good faith efforts to comply with the jurisdiction's approved Solid Waste Management Plan.

By providing the storage capacity, the project could enhance the ability of cities and counties to meet the diversion goals of AB 939. Such storage may increase the likelihood that markets will develop for recyclable materials. For example, the storage capacity could allow jurisdictions to "weather" temporary gluts in recyclable materials. At the same time, it is important that provisions be made to allow landfilling of recyclable materials for which there is no viable market after a reasonable period of time (i.e., two years). Without this ability, the project could become a storage facility for recyclable materials that have been "abandoned" by the jurisdictions responsible for them.

Response to Comment No. 17 (Cont'd)

In a recent article in the California Environmental Insider (July 31, 1994), the CIWMB is cited as stating that a substantial increase in the rate at which green waste is composted and the development of better markets for recycled products will be required to meet the 50 percent reduction goal. Providing storage capacity for recyclable materials may enhance the development of better markets.

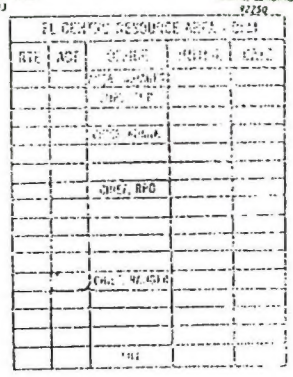
City of Brawley
430 Main Street
Brawley, California
92227

City of Calexico
408 Heber Avenue
Calexico, California
92231

City of El Centro
1275 Main Street
El Centro, California
92243

City of Holtville
121 West 4th Street
Holtville, California
92250

2000
Mesquite
Landfill



June 7, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Gentlemen:

Enclosed is "Attachment A", comments from the cities of Brawley, Calexico, El Centro, and Holtville regarding the adequacy of the Draft Environmental Impact Statement and Environmental Impact Report (EIS/EIR) for the proposed Mesquite Regional Landfill.

The cities believe that Attachment A presents valid and significant points for response and careful consideration by the County of Imperial, Arid Operations, and the Bureau of Land Management.

We will be seeking an understanding from these parties as to how the cities' concerns will be mitigated.

Sincerely,

Rodger Bennett, City Manager
City of Brawley

Alejandro Armenta, City Manager
City of Calexico

Abdel Salem, City Manager
City of El Centro

Karen Stauffer, City Manager
City of Holtville

ATTACHMENT A

The purpose of the Draft EIS/EIR for the proposed Mesquite Regional Landfill is to address short- and long-term environmental impacts of a major solid waste disposal project and identify mitigation measures to reduce such impacts. The document identifies numerous mitigation measures aimed at reducing environmental impacts of the project, but overlooks the host fees (or import fees to be paid by the landfill owner/operator) as a
18 source of impact mitigation. The host fees represent an important source of project mitigation that should be shared among local governments in an equitable manner to reduce the short- and long-term impacts of the landfill on the population of the Imperial Valley.

The Draft EIS/EIR concludes that all Alternatives except the No Action Alternative will result in significant visual impacts that cannot be mitigated, and cumulatively significant air quality and traffic impacts that cannot be mitigated. When unmitigable impacts result from a project, the NEPA/CEQA lead agencies (Bureau of Land Management and County of Imperial) are responsible for ensuring that all feasible mitigation measures are identified and included as requirements before the project is approved.

The EIS/EIR indicates that the landfill will have both beneficial and adverse impacts. Although many of the project's significant adverse impacts can be mitigated, the people the Imperial Valley are asked to accept unmitigable project impacts related to visual resources, and unmitigable cumulative impacts related to transportation and air quality so that the population of the Los Angeles basin will have a suitable location for long-term disposal of their solid waste. The majority of the population of Imperial County resides within incorporated communities -- the cities of El Centro, Brawley, Holtville, Calexico, Calipatria, Imperial, and Westmorland. Of the approximately 120,000 people presently residing in the Imperial Valley, about 90,000 or 75 percent live within incorporated communities and rely upon city government to provide many necessary urban services and facilities.

Approximately 200 direct and indirect jobs will be created for workers who will choose to reside in Imperial County. These workers will be housed primarily within the incorporated communities and the city governments will be responsible for providing police protection, fire protection, recreational facilities, libraries, water and sewer service, and other municipal services to support the demand generated workers housed in those communities.

Over the next 45 years the California Department of Finance estimates that the population of Imperial County will increase to approximately 310,000 by 2040. As the population
19 increases over time, most of this growth will be absorbed by the existing cities. The existing and future population of these cities is being asked to accept a regional landfill that will create a mountainous landform of solid waste that will exist in perpetuity and that is predicted to have an operable life of 100 years or more. Sharing of the host fees (or import fees) between the County of Imperial and these cities could partially reduce the resulting impacts.

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, SIGNED BY RODGER BENNETT, CITY MANAGER; CITY OF CALEXICO, SIGNED BY ALEJANDRO ARMENTA, CITY MANAGER; CITY OF EL CENTRO, SIGNED BY ABDEL SALEM, CITY MANAGER; AND CITY OF HOLTVILLE, SIGNED BY KAREN STAUFFER, CITY MANAGER; DATED JUNE 7, 1994.

Response to Comment No. 18

As noted by this comment, the Applicant proposes to establish a host fee that would be paid to the County of Imperial and potentially to the local Cities. The host fee is not intended as mitigation for significant environmental effects of the Proposed Action. This EIS/EIR identifies a number of mitigation measures that will be implemented by the Applicant as conditions of permits. These measure will reduce most significant impacts to insignificance. There were no reasonable programs, identified during preparation of this EIS/EIR or in public and agency comments on the Draft EIS/EIR, which could be implemented through the establishment of an environmental mitigation fund to reduce the significant impact to visual resources or the cumulatively significant traffic and air quality impacts identified by this EIS/EIR. The host fee would be used for public purposes as determined by the Board of Supervisors.

Response to Comment No. 19

The proposed landfill would not cause the projected population growth in Imperial County and the cities of Imperial County. Therefore, it would not be reasonable to require the Applicant to mitigate these impacts.

While host fees are mentioned as a source of revenue in the EIS/EIR, these fees are not described as mitigation for environmental impacts. The document also mentions that a portion of the host fees may be allocated to the cities of Imperial County, but no use of
20 these fees is described for mitigation of significant air quality, transportation, visual and other impacts. Commitment of the host fees as a mitigation measure is both a feasible and appropriate mechanism to protect the environment of the Imperial Valley.

Of particular concern is the landfill project's cumulatively significant impact on the air quality of the Imperial Valley when combined with the impacts of other future projects. The Valley is presently classified as a nonattainment area using both federal and state air quality criteria for PM_{10} (airborne particulate matter less than 10 micrometers in diameter). The sources of the particulate matter are wind-blown dust generated by activities such as driving on dirt roads, off-road vehicle use, construction and agricultural practices. The Draft EIS/EIR indicates that the landfill will contribute to this significant impact.

Although mitigation measures such as on-site roadway paving, dust suppression, and street cleaning are recommended, these actions are limited to the landfill property or immediately surrounding area. No other mitigation measures are specifically identified to address
21 cumulative air quality impacts, yet the host fees for the landfill can provide feasible mitigation. If distributed equitably between the County and cities, these fees offer a logical source of funding for road paving, dust suppression, street cleaning, tree planting for windbreaks, local transit service, indoor recreation centers, and related public services and improvements within the communities where people are most affected by this cumulative air quality impact.

The Draft EIS/EIR also indicates that cumulatively significant traffic impacts along State Route 78 will result from the project and other activities in the surrounding area during the winter weekends between October 1st and May 31st each year. Presently, during these weekends, the area is highly congested (a traffic level of service of F) as people travel to and from the Imperial Sand Dunes Recreation Area (ISDRA). The landfill will contribute to traffic congestion.

Although several mitigation measures are described to address the significant traffic impact, the EIS/EIR does not discuss the possibility that this cumulatively significant traffic impact
22 could be reduced by the provision of additional recreational opportunities at other locations in the Valley. Such recreational facilities may include parklands and sports, cultural, performing arts, and convention centers. Again, an equitable distribution of the landfill host fees could provide a source of funding for recreation facilities within the population centers of the Valley that may reduce the high demands placed on the ISDRA.

The Draft EIS/EIR also concludes that the visual impact of the landfill is significant and cannot be fully mitigated. While this impact is not directly experienced without being relatively close to the landfill site, this impact will exist in perpetuity and the landform
23 created by the project will always be a reminder of the need to address the issue of solid waste disposal. This type of impact can be reduced in the future by development and application of methods to reduce the volume of material sent to landfills. The use of host fees to support local recycling efforts and related public services is a logical approach to

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 20

Comment noted. Please see response to Comment No. 18.

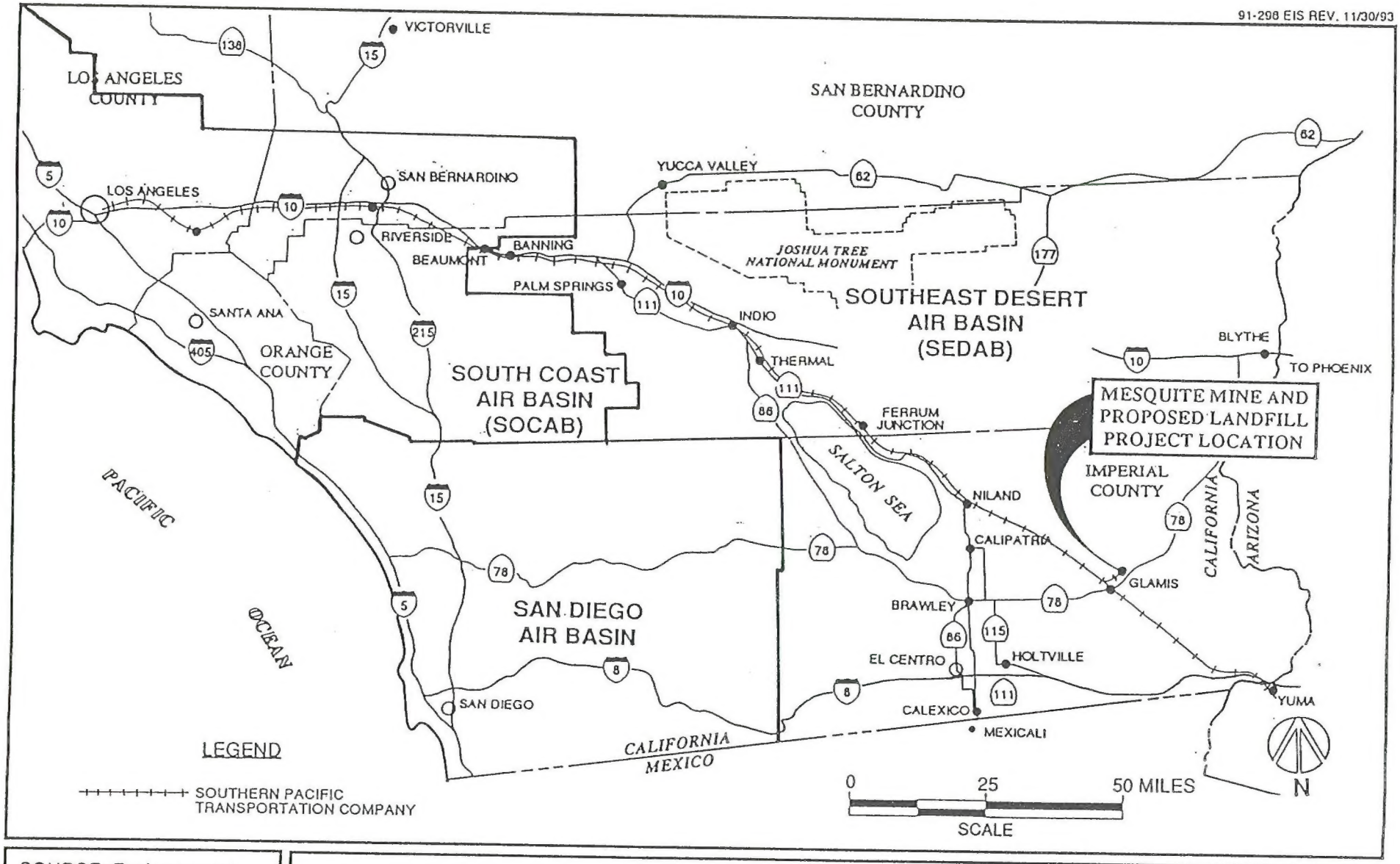
Response to Comment No. 21

Comments have been raised concerning potentially cumulative significant air quality impacts, especially as they pertain to rail haul of municipal solid waste (MSW) residue to the site. The comments focus on ozone (O_3) and inhalable particulate matter (with aerodynamic diameter less than or equal to 10 micrometers, PM_{10}) because the regions along the rail haul route, as well as the site area (see Response Figure 1), are federal and state nonattainment for O_3 and PM_{10} as shown in Response Table 1.

The following is an integrated discussion of cumulative O_3 and PM_{10} impacts. It considers the direct impacts at the site together with the indirect impacts of Southern Pacific Transportation Company's (SP) trains that would be contracted to haul the MSW residue to the proposed landfill site. This combined discussion provides an overall description of environmental factors associated with air quality effects, direct and indirect, of the Proposed Action. The discussion is organized to follow the SP trains as they pick up MSW residue in the Los Angeles area and travel through Coachella Valley to the proposed site in Imperial County. A discussion of site cumulative O_3 and PM_{10} impacts is also included.

Trains are considered common carriers engaged in interstate commerce and therefore are regulated primarily by the federal government. For air quality, the U.S. Environmental Protection Agency (EPA) has responsibility to regulate emissions from trains as required by the Clean Air Act (CAA) enacted in 1970 (amended in 1977 and 1990). Initial industry efforts to control emissions focused on reduction of the smoke emanating from trains. As a result, reductions in PM_{10} and hydrocarbons occurred, but the more efficient engines emitted additional nitrogen oxides (NO_x).

When concern about O_3 in Southern California increased in recent years, regulatory focus for trains shifted to reductions of O_3 precursor emissions, NO_x and reactive organic gases (ROGs). Discussions between industry and regulators were undertaken to identify the extent of NO_x reductions that would be required. Initial South Coast Air Quality Management District (SCAQMD) recommendations were for 90 percent NO_x



SOURCE: Environmental Solutions, Inc. 1992

Proposed Mesquite Regional Landfill

Regional Location Map

FIGURE 1

Response to Comment No. 21 (Cont'd)

RESPONSE TABLE 1

NONATTAINMENT STATUS ALONG ROUTE OF PROPOSED ACTION

GEOGRAPHIC AREA	AMBIENT AIR QUALITY STANDARDS	O_3	PM_{10}
South Coast Air Basin (SOCAB)	California (1)	Extreme (3)	Nonattainment
	Federal	Extreme (4)	Serious (7)
Coachella Valley	California (1)	Moderate (5)	Nonattainment
	Federal	Severe -17 (6)	Serious (7)
Imperial County	California (1)	Moderate (5)	Nonattainment
	Federal	Transitional (2)	Moderate (7)

(1) CARB, 1994b.
(2) 56FR 56726, November 6, 1991.
(3) California extreme nonattainment of O_3 means that measured ambient air concentrations are greater than 200 ppbv during 1989-1991 (CARB, 1993b).
(4) 56FR 56726-56727, November 6, 1991; federal extreme nonattainment of O_3 means that measured ambient air concentrations were greater than 280 ppbv during 1987-1989 (56 FR 56696, November 6, 1991).
(5) California moderate nonattainment of O_3 means that measured ambient air concentrations are between 90 and 120 ppbv during 1989-1991 (CARB, 1993b).
(6) 56FR 56730-56731, November 6, 1991; federal severe -17 nonattainment of O_3 means that measured ambient air concentrations were between 190 and 280 ppbv during 1987-1989 (56 FR 56696, November 6, 1991).
(7) 58FR 3341, January 8, 1993.

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 21 (Cont'd)

reductions from train emissions. On the other hand, industry recently made a proposal to the EPA (which is discussed below) through the Association of American Railroads (AAR) (AAR, 1994) to reduce NO_x emissions from trains by 55 percent. The railroad industry believes it can accomplish this level of reduction based on anticipated locomotive technology. While actual NO_x emission reductions that will be required by the EPA have not been determined, it is expected that they will fall within the range established by these discussions. As a result, even if only the low end of this range (55 percent NO_x reductions) is ultimately required by the EPA, it would be in excess of what was projected in the air quality technical analysis of the (DEIS/EIR). Hence, the proposed 55 percent reduction in NO_x emissions from trains is used in the analysis discussed herein.(1)

Consequently, though future increases in traffic along the rail haul route cannot be predicted (because of economic uncertainties), NO_x emissions from trains delivering MSW residue can be expected to decline substantially over the next ten years as the Mesquite Regional Landfill proposes to commence operation.(2) The trains that would deliver MSW residue to the Mesquite Regional Landfill are operated by SP and would not be dedicated to the project, nor would they be maintained or controlled by the Applicant.

Cumulative impact is analyzed in the context of comparison of the Proposed Action to a No Action Alternative. The No Action Alternative is defined in this EIS/EIR as the Proposed Mesquite Regional Landfill not

(1) The data presented in the text and tables of this response have been updated to reflect the new 55 percent NO_x emission reduction assumption as well as improved train emission modeling provided by SP. Arithmetic corrections were also made, as needed, in connection with these updates. Similar updates were made to data presented in the rest of this EIS/EIR. The resulting information included in this response and this Final EIS/EIR represents the most accurate and up-to-date information for the proposed Mesquite Regional Landfill air quality impacts. Note that each update to the air quality data is explained in Appendix I to this Final EIS/EIR.

(2) It is anticipated that these reductions will be accomplished through use of new state-of-the-art locomotive technology, which would gradually be incorporated into existing equipment. Though the AAR proposal was made for train operations throughout the United States, SP has indicated that the initial efforts for implementing the new locomotive technology would occur in southern California, due to the greater concern about O_3 in this area.

Response to Comment No. 21 (Cont'd)

being approved for development. The BLM would not complete the proposed land exchange or grant the rights-of-way requested by the Applicant. The County of Imperial would not issue the CUP or other permits listed in Table 1-2 of this EIS/EIR that would authorize the development of the proposed regional landfill. For purposes of clarity, and in light of comments received on the Draft EIS/EIR, this response considers two distinct versions of the No Action Alternative: the 'in-SOCAB landfills No Action Alternative' and the 'out-of-SOCAB landfills No Action Alternative.' Neither NEPA or CEQA requires the consideration of multiple versions of the 'No Action Alternative.' (See 40 CFR § 1502.14(s) and State CEQA Guidelines § 15126(d)(2).) Nevertheless, in this instance the air quality impacts of two distinct versions of the No Action Alternative have been analyzed to fully appraise the public of air quality issues related to regional solid waste disposal.

Section 4.2.8.1 of the DEIS/EIR describes the air quality assumptions associated with the in-SOCAB landfills No Action Alternative, which is defined as the condition, going forward into the future, where the Mesquite Regional Landfill is not constructed and MSW continues to be collected and disposed locally in South Coast Air Basin (SOCAB) as is currently done. For this No Action Alternative, the DEIS/EIR assumes that continued collection and disposal of MSW locally in SOCAB would cause current local landfills to reach their capacity and close within a few years. Larger, more remote SOCAB landfills are therefore assumed to be developed to handle long-term MSW disposal needs.

Under the out-of-SOCAB landfills No Action Alternative, it is assumed that the MSW residue that is proposed for delivery to the proposed Mesquite Regional Landfill would instead go to a different landfill(s) located outside of the SOCAB. This alternative cannot be defined with any certainty because there are a number of out-of-SOCAB landfills that may be available to accept MSW residue from Los Angeles (EIS/EIR Table 2-6). These landfills are in various stages of planning/operation and are widely dispersed geographically. Therefore, only qualitative discussions comparing the impacts of the Proposed Action and the out-of-SOCAB landfills No Project Alternative can be provided.

These assumptions recognize that if the Mesquite Regional Landfill is approved, it will have no effect on the rate at which communities within

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SOCAB generate or divert MSW. In other words, the generation or diversion of MSW within SOCAB is a given, as is the need for disposal consistent with priorities established by Assembly Bill (AB) 939. Thus, the analysis of alternatives for the Mesquite Regional Landfill in the DEIS/EIR properly focuses on alternative scenarios regarding the manner and location of disposal of MSW residue going forward into the future.

Both the No Action Alternative and Proposed Action assume that packer trucks would haul MSW to transfer stations after collection. The next step, however, differs between the two alternatives. In the in-SOCAB landfills No Action Alternative, transfer trucks would haul MSW residue from the transfer stations to the more distant local landfills in SOCAB. Alternatively, the Proposed Action and out-of-SOCAB landfills No Action Alternative would use container trucks to haul MSW residue from the transfer stations to the Los Angeles Transportation Center (LATC), or other such intermodal facility in the Los Angeles Basin (e.g., City of Industry), where trains would then transport the waste to the proposed Mesquite Regional Landfill or other out-of basin landfill(s). The local landfills in the No Action Alternative are assumed to use the same landfilling technology as proposed for the Mesquite Regional Landfill for purposes of calculating emissions from operating equipment.

As analyzed in the DEIS/EIR, a cumulatively significant impact associated with O_3 or PM_{10} for the proposed site could only happen if a combination of the Proposed Action plus other closely-related past, present, or reasonably foreseeable future projects made a substantial contribution to: (1) an existing or projected violation of an ambient air quality standard; or (2) a delay in attainment of ambient air quality standards.

Some commentors appear to take the position that, if an air basin affected by the project is not in attainment with applicable air quality standards, then any further emissions, no matter how negligible, are automatically cumulatively significant. Taken to its logical conclusion, this position leads to the result that emitting one additional molecule of a pollutant into an affected air basin is, by itself, cumulatively significant. California Environmental Quality Act (CEQA) does not support such a position. In the leading case on cumulative air quality impacts, Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692 [270 Cal.Rptr. 650], the Court held that the lead agency cannot dismiss a

Response to Comment No. 21 (Cont'd)

project's contribution to cumulative air quality impacts simply by noting the severity of the existing air quality problem. (221 Cal.App.3d at 718-721.) Consistent with the Kings County Farm Bureau decision, this response analyzes separately the project's contribution to cumulative air quality impacts. The response also identifies the qualitative standard of significance used to determine whether the project's contribution to air quality impacts, viewed in conjunction with other emissions, is collectively significant.

O_3 IMPACTS

SOCAB

SOCAB, where the rail haul route begins, is currently in extreme state and federal nonattainment for O_3 (see Response Table 1). The analysis in the DEIS/EIR indicates that total emissions of NO_x and ROG in SOCAB are 2,600,000 and 3,200,000 pounds per day (lbs/day), respectively (SCAQMD, 1994). Mixing of ozone precursors is limited to a relatively thin layer in SOCAB and airborne transport of pollutants out of the basin is restricted by the surrounding mountains and an inversion layer that commonly occurs below the 2,200-foot (above mean sea level [AMSL]) - elevation of Banning Pass (EPA, 1972; Taylor and Marsh, 1991). As a result, nighttime and early morning emissions of O_3 precursors are "trapped" in SOCAB and are available for the photochemistry that results in formation of O_3 the following day.

The Proposed Action would cause a substantial net reduction of local MSW residue truck traffic in SOCAB. This is because MSW residue that is currently transported by truck to local landfills for disposal would, instead, be transported by rail haul out of SOCAB to the proposed Mesquite Regional Landfill and emissions per unit weight of cargo are less for trains than for trucks. The air quality benefits associated with this reduction in local MSW residue truck traffic are shown in Response Table 2 and Response Figure 2. The horizontal axis for the four parts of Response Figure 2 are distance from the coast along the rail haul route to the proposed site. Part A shows the transition from SOCAB to the Coachella Valley at Banning Pass, and the transition at the Riverside - Imperial County line. The downtown locations of Los Angeles and Riverside are shown as reference marks. The greatly different mixing layer depths over SOCAB and the Southeast Desert Air Basin (SEDAB) are also shown.

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Response to Comment No. 21 (Cont'd)

RESPONSE TABLE 2

PROJECT-RELATED EMISSIONS IN SOCAB

CASE	EMISSION RATE (lbs/day)				
	NO_x	ROG(3)	PM_{10} (3)	SO_x (3)	CO (3)
Proposed Action • Trucks, LATC and Current Technology Trains (1)	4,600	260	160	80	920
• Trucks, LATC and DEIS/EIR/30% NO_x Control on Trains(1)	3,480	260	160	80	920
• Trucks, LATC and AAR/ 55% NO_x Control on Trains(2)	2,350	200	120	70	820
No Action Alternative(4)	4,080	970	460	570	2,620
All Sources(5)	2,600,000	3,200,000	2,200,000	250,000	13,500,000
Ratio of Proposed Action (with AAR) Emissions and All Sources (Percent)	0.09	0.0062	0.0055	0.028	0.006

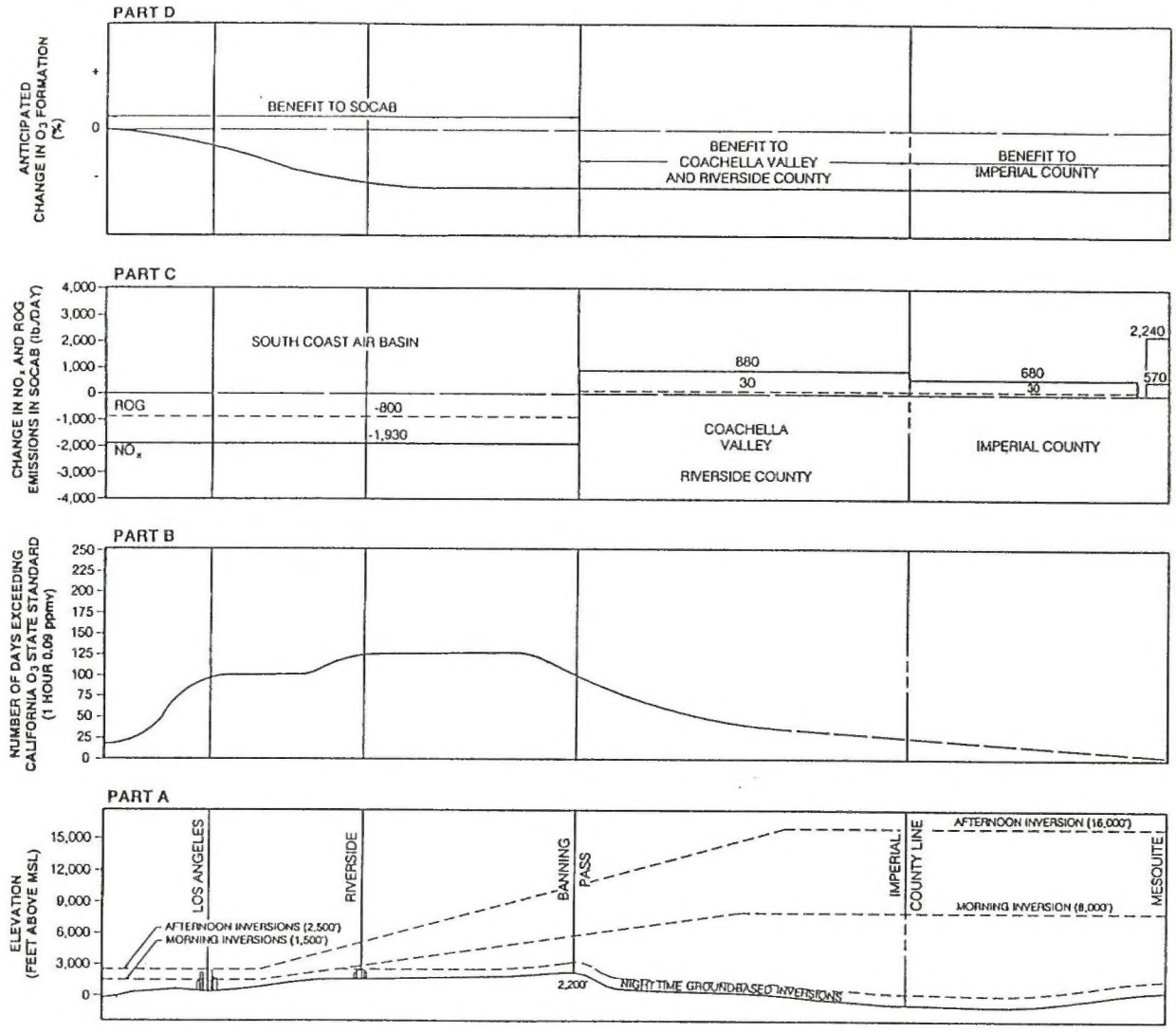
(1) Train emissions after 2005 based on the DEIS/EIR's use of four locomotives (3,600 hp each), emission factors in Booz•Allen & Hamilton (1991), and MSW residue disposal rate of 20,000 tpd.

(2) Train emissions after 2005 based on SP's assumed use of two General Electric Dash 9 locomotives (4,400 hp each), Association of American Railroads (AAR) Train Energy Model (SPTC, 1994), MSW residue disposal rate of 20,000 tpd, and AAR (1994) proposed 55 percent NO_x reduction.

(3) Although emissions of these criteria pollutants may also decrease from improved technology, none is claimed beyond the NO_x reduction proposed by the AAR (1994).

(4) Assumes transport by trucks, landfills located in SOCAB, and MSW residue disposal rate of 20,000 tpd.

(5) Baseline inventory for 1987 (SCAQMD, 1994).



EMISSIONS IN SOCAB FOR YEAR 100 WITH BOILER/GENERATOR MESQUITE REGIONAL LANDFILL (pounds/day)

ACTIVITY	PROPOSED ACTION EMISSIONS IN SOCAB		
	NO_x	ROG	BOTH
CONTAINER TRUCKS AND LATC	870	140	1,010
TRAINS	1,480	60	1,540
LANDFILL BOILER AND FUGITIVES	0	0	0
LANDFILL EQUIPMENT EXHAUST AND FUGITIVES	0	0	0
TOTAL	2,350	200	2,550

ACTIVITY	NO ACTION EMISSIONS IN SOCAB		
	NO_x	ROG	BOTH
CONTAINER TRUCKS	1,910	370	2,280
TRAINS	0	0	0
LANDFILL BOILER AND FUGITIVES	830	360	1,190
LANDFILL EQUIPMENT EXHAUST AND FUGITIVES	1,540	270	1,810
TOTAL	4,280	1,000	5,280

SOURCE: Environmental Solutions, Inc. 1995.

Proposed Mesquite Regional Landfill

Emissions and Effect on Ozone of Landfill vs. No Action Alternative

RESPONSE FIGURE 2

Response to Comment No. 21 (Cont'd)

In 1994, SP proposed to the EPA through the AAR to reduce NO_x emissions from its trains 55 percent by the year 2005 (AAR, 1994). This proposal was made as part of ongoing negotiations between industry and regulators regarding the extent of additional controls that will be required to reduce emissions of ozone precursors (NO_x and ROG). These discussions have occurred in light of increased regulatory concern about O_3, especially in Southern California. The DEIS/EIR analysis assumes that NO_x emissions would be reduced by only 30 percent through that same period (see Section 4.1.8.2 of DEIS/EIR). Because the regulators have proposed consideration of NO_x reductions in excess of the 55 percent industry proposal, it is anticipated that the final EPA NO_x reduction requirements will meet or exceed 55 percent. Therefore, even lesser impacts to air quality from project-related train emissions in SOCAB can be expected to occur than are presented in the DEIS/EIR. Response Table 2 shows emissions in SOCAB with and without project-related trains and the additional anticipated NO_x reductions. Response Table 2 and the insert tables on the right side of Response Figure 2 show that a 55 percent decrease in NO_x emissions from project-related trains leads to an approximate 42 percent reduction in NO_x emissions from all Proposed Action sources in SOCAB compared to the in-SOCAB landfills No Action Alternative sources. Although the project-related train emissions of ROG are not changed by the 55 percent NO_x reduction, the Proposed Action reduces ROG emissions in SOCAB compared to the in-SOCAB landfills No Action Alternative by 72 percent. If the NO_x and ROG emissions are combined, then the Proposed Action would reduce the combined O_3 precursor emissions in SOCAB compared to the in-SOCAB landfills No Action Alternative by 50 percent.

The Proposed Action and the out-of-SOCAB landfills No Action Alternative would provide similar reductions in O_3 precursor emissions within SOCAB. Because the Proposed Action would decrease O_3 precursor emissions within SOCAB, as compared to the in-SOCAB landfills No Action Alternative, and would result in no change in O_3 precursor emissions within SOCAB as compared to the out-of-SOCAB landfills No Action Alternative, the Proposed Action would not have a significant impact on air quality within SOCAB. Moreover, because the Proposed Action would result in a net improvement or no net change in air quality within SOCAB as compared to the two No Action Alternatives, the Proposed Action would

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not result in cumulatively significant air quality impacts within SOCAB. These conclusions are consistent with the analysis presented in the DEIS/EIR.

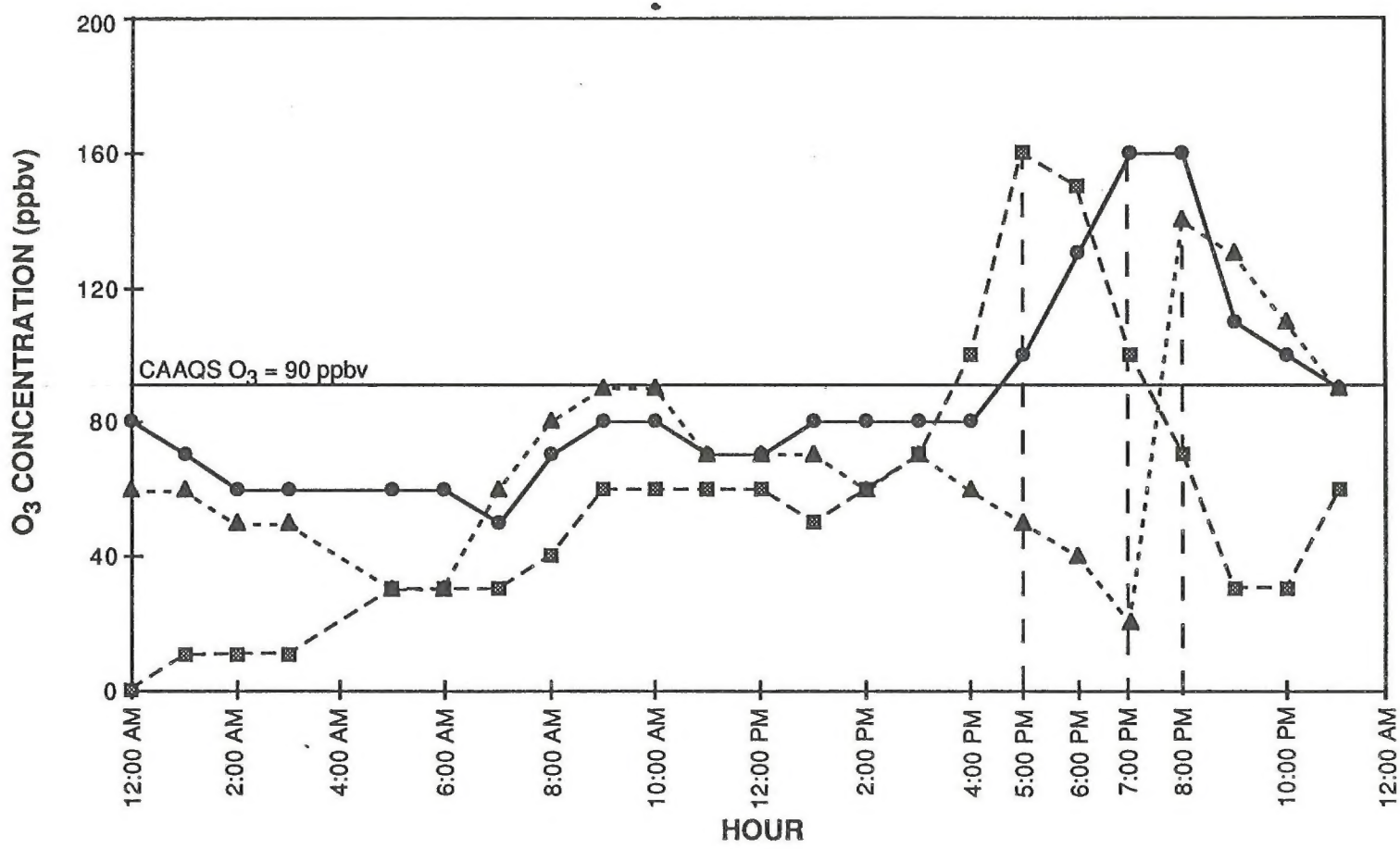
COACHELLA VALLEY

Coachella Valley, which includes approximately 76 miles of the rail haul route, is currently in severe federal nonattainment for O_3 and moderate state nonattainment for O_3 (see Response Table 1). Coachella Valley receives much of its O_3 and O_3 precursors by airborne transport from SOCAB through Banning Pass (CARB, 1989). O_3 exceedances in the area are primarily associated with such transport (CARB, 1989). An example of this transport is shown in Response Figure 3, which was contained in Appendix F (Air Quality Analysis) of the DEIS/EIR. The figure shows airborne transport of the O_3 concentration peak in the surface layer past the monitoring stations at Banning, Palm Springs, and Indio. The airborne transport from SOCAB to the Coachella and Imperial Valleys can also occur in elevated layers (CARB, 1989), which could cause O_3 exceedances to be observed at Palm Springs that are not observed at Banning.

In contrast to SOCAB, local NO_x and ROG emissions from sources within Coachella Valley are relatively small. The difference between Coachella Valley and SOCAB emissions of NO_x and ROG is caused by a much smaller population and fewer emitting sources. The DEIS/EIR indicates that Coachella Valley NO_x emissions average 100,000 lbs/day and ROG emissions average about 300,000 lbs/day (SCAQMD, 1991).

Emissions from the trains that would haul MSW residue through the Coachella Valley would be small relative to local sources. The maximum project-related five trains per day (10 one-way trips) would account for only 0.7 and 0.01 percent, respectively, of the total NO_x and ROG emissions in Coachella Valley (see Response Table 3).

Mixing and dispersion are good in Coachella Valley, particularly during the O_3/smog season, which occurs from approximately April through October (CARB, 1994a). During this period the inversion cap on the mixing layer is high, between approximately 15,000 and 17,000 feet AMSL during the



LEGEND

- INDIO
- PALM SPRINGS
- BANNING

SOURCE: SCAQMD, 1992.

FIGURE 3

DAILY O_3 CONCENTRATION CYCLE FOR AN EXCEEDANCE AT INDIO, PALM SPRINGS AND BANNING ON AUGUST 15, 1992

MESQUITE REGIONAL LANDFILL

Response to Comment No. 21 (Cont'd)

RESPONSE TABLE 3

PROJECT-RELATED EMISSIONS IN COACHELLA VALLEY WITHOUT CONSIDERING AIRBORNE TRANSPORT

CASE	EMISSION RATE (lbs/day)				
	NO_x	ROG (3)	PM_{10} (3)	SO_x (3)	CO (3)
Proposed Action • Current Technology Trains (1)	3,830	120	80	60	380
• DEIS/EIR/30% NO_x Control on Trains(1)	2,680	120	80	60	380
• AAR/55% NO_x Control on Trains(2)	880	30	20	30	160
All Sources	123,000 (4)	314,000 (4)	915,000 (5)	17,000 (4)	900,000 (4)
Ratio of AAR Train Emissions and All Sources (Percent)	0.72	0.0096	0.0002	0.18	0.018

(1) Train emissions after 2005 based on the DEIS/EIR use of four smaller locomotives (3,600 hp each) emission factors in Booz•Allen & Hamilton (1991), and MSW residue disposal rate of 20,000 tpd.

(2) Train emissions after 2005 based on SP's planned use of two General Electric Dash 9 locomotives (4,400 hp each), Association of American Railroads (AAR) Train Energy Model (SPTC, 1994), MSW residue disposal rate of 20,000 tpd, and AAR (1994) proposed 55 percent NO_x reduction.

(3) Although emissions of these criteria pollutants may also decrease from improved technology, none is claimed beyond the NO_x reduction proposed by the AAR (1994).

(4) Baseline inventory for 1987 (SCAQMD, 1991).

(5) SCAQMD (1990).

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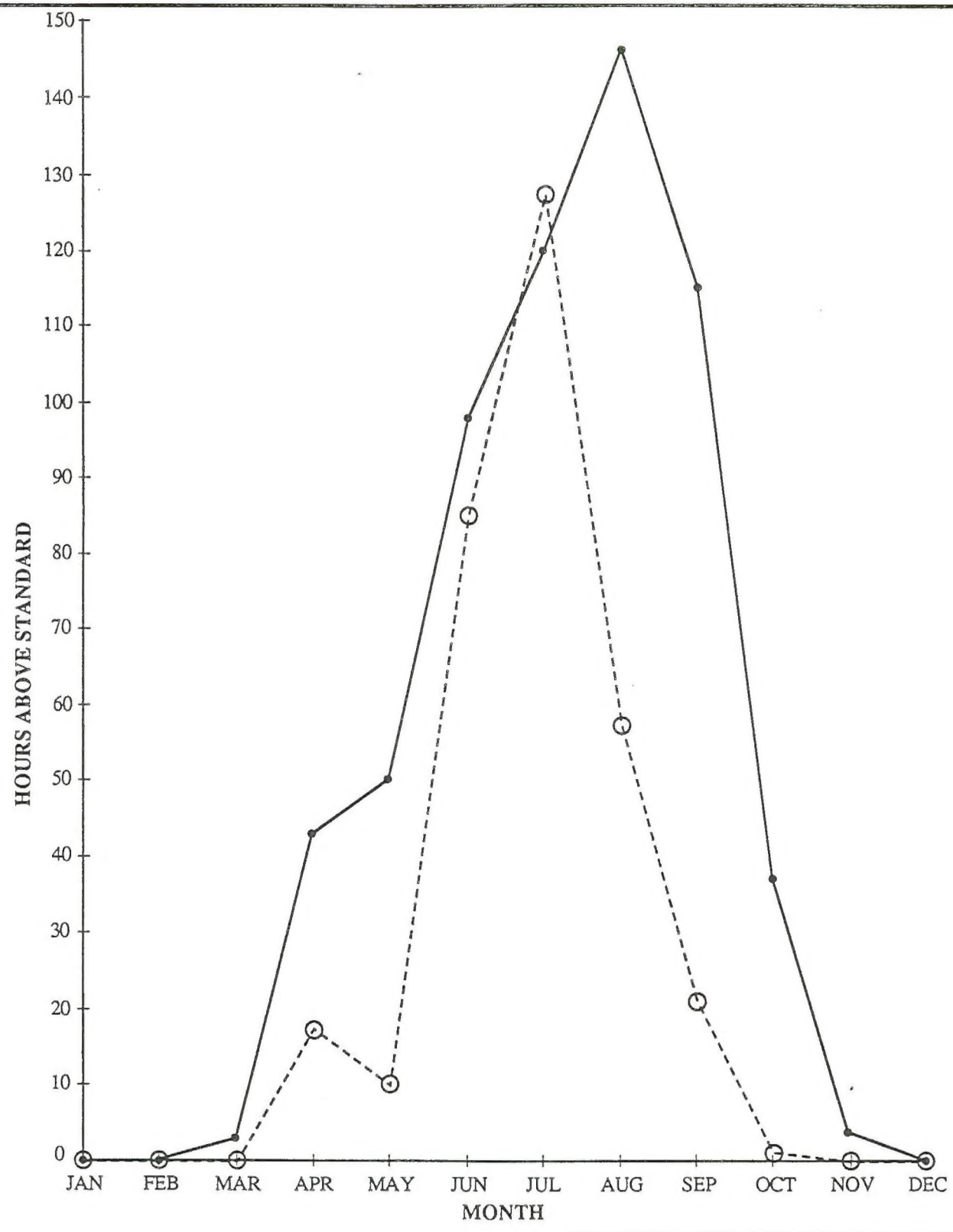
afternoon when O_3 concentration is highest (NOAA, 1992). The small magnitude of Coachella Valley NO_x and ROG emissions are diluted in the deep mixing layer formed below this inversion, which helps to minimize the generation of O_3 from local sources. This would also minimize O_3 formation from the MSW residue train emissions as they travel along the rail haul route through Coachella Valley.

It should be emphasized that the deep mixing layer does not merely dilute O_3 formed within the Coachella Valley, but reduces the amount of O_3 that forms. The reason for the reduced formation is that O_3 generation requires the presence and reactions of both NO_x and ROG. If NO_x and ROG concentrations are low because of the deep mixing layer, then little O_3 is formed.

Lower inversions and shallower mixing layers occur during winter months (NOAA, 1992), but winter's lower sun angle, shorter days, and hence, lower ambient temperature reduce the energy available to drive photochemical reactions. Therefore, local O_3 formation is retarded during winter months when the mixing layer is shallower and less able to dilute precursor emissions. The variation of O_3 exceedances by season at Palm Springs during 1993 are shown in Response Figure 4. This seasonal variation is the same as that at Rubidoux (see Response Figure 4) and other SOCAB monitoring stations, and follows the meteorological cycle of sea breeze development, which is the mechanism of airborne transport from SOCAB eastward through Banning Pass to Coachella Valley (CARB, 1989; SCAQMD, 1981).

The reduction of emissions of O_3 precursors in SOCAB caused by the Proposed Action, as indicated in Response Figure 2, compared to the in-SOCAB landfills No Action Alternative, would reduce the airborne transport of O_3 and its precursors into the Coachella Valley. The reduced airborne transport would tend to reduce the O_3 concentrations measured at Palm Springs and Indio.

To determine the net effect, the magnitude of this reduction is compared to the impact of the direct emissions of project-related trains as they pass through Coachella Valley. In an attempt to quantify the impact of the reduced airborne transport of O_3 precursors from SOCAB into Coachella



LEGEND

- -○- - PALM SPRINGS
- —●— RUBIDOUX

(1) CALIFORNIA ONE-HOUR STANDARD =90ppbv=180μg/m³

FIGURE 4

MONTHLY NUMBER OF HOURS O_3 CONCENTRATION EXCEEDED CALIFORNIA STANDARD(1) IN 1993

MESQUITE REGIONAL LANDFILL

Response to Comment No. 21 (Cont'd)

Valley, an effort was made to identify a suitable dispersion model. It was determined that California Air Resources Board (CARB) has approved only the Urban Airshed Model for analyses of O_3 formation. The approval is limited to the five largest urban areas in the state, and therefore it is not applicable for modeling O_3 in the Coachella Valley. In lieu of a complex dispersion model that simulates detailed photochemistry and meteorology, a simple mixing volume model was developed to estimate the concentration of O_3 precursors in SOCAB attributable to emissions from either the in-SOCAB landfills No Action Alternative or the Proposed Action. The model is based on conservation of mass for a mixing volume that is defined as including the Salton Trough area extending from Banning Pass to the border of Mexico (see Attachment A).

The first part of the model calculations, contained in Attachment A, show how the Proposed Action would be expected to decrease the O_3 precursor concentrations transported by the atmosphere from SOCAB through the Salton Trough (Coachella Valley and Imperial County).

The second part of the calculation examines the amount of train emissions (with AAR 55 percent NO_X reduction) that could enter a volume of air as it is transported from SOCAB through the Salton Trough. As can be seen in Response Table 4, the result of the Proposed Action is a net reduction of the overall concentrations of O_3 precursors in Coachella Valley. Hence, as compared to the in-SOCAB landfills No Action Alternative, the Proposed Action would not have a significant impact on O_3 concentration within Coachella Valley and O_3 precursor emissions would not be cumulatively significant.

As noted above, O_3 exceedances in Coachella Valley are associated with airborne transport from SOCAB. However, as shown in Attachment A, even on days when SOCAB air is not transported through Banning Pass and the Salton Trough, the five trains (10 one-way trips) that would result from delivery of MSW residue to the proposed landfill could potentially increase the ambient concentration of O_3 by only 0.09 percent of the California Ambient Air Quality Standards (CAAQS) (see Response Table A.4). This small increase during these "nontransport" periods would not make a substantial contribution to existing or projected violations in Coachella Valley, nor would it cause a substantial delay in attainment of ambient air quality standards in the area. This is because:

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Response to Comment No. 21 (Cont'd)

RESPONSE TABLE 4

PROJECT-RELATED EMISSIONS IN COACHELLA VALLEY WITH AIRBORNE TRANSPORT REDUCTION

CASE	EMISSION RATE (lbs/day)				
	NO_X	ROG (3)	PM_{10} (3)	SO_X (3)	CO (3)
Proposed Action					
• Current Technology Trains (1)	3,830	120	80	60	380
• DEIS/EIR/30% NO_X Control on Trains (1)	2,680	120	80	60	380
• AAR/55% NO_X Control on Trains (2)	880	30	20	30	160
Airborne Transport Reduction	1,730	750	340	500	2,580
All Sources	123,000 (4)	314,000 (4)	915,000 (5)	17,000 (4)	900,000 (4)
Ratio of AAR Train Emissions and All Sources (Percent)	0.73	0.0096	0.0002	0.18	0.018

(1) Train emissions after 2005 based on the DEIS/EIR use of four smaller locomotives (3,600 hp each) emission factors in Booz•Allen & Hamilton (1991), and MSW residue disposal rate of 20,000 tpd.

(2) Train emissions after 2005 based on SP's planned use of two General Electric Dash 9 locomotives (4,400 hp each), Association of American Railroads (AAR) Train Energy Model (SPTC, 1994), MSW residue disposal rate of 20,000 tpd, and AAR (1994) proposed 55 percent NO_X reduction.

(3) Although emissions of these criteria pollutants may also decrease from improved technology, none is claimed beyond the NO_X reduction proposed by the AAR (1994).

(4) Baseline inventory for 1987 (SCAQMD, 1991).

(5) SCAQMD (1990).

Response to Comment No. 21 (Cont'd)

(1) increments of only 0.09 percent of CAAQS are very small; and (2) O_3 exceedances typically only occur during periods of airborne transport. As a result, the small increase during nontransport periods is even less likely to combine with background and have the potential to cause an exceedance.

The air quality effects of the Proposed Action would be similar to the air quality effects of the out-of-SOCAB landfills No Action Alternative, for rail haul through the Coachella Valley. Therefore, these effects would not be cumulatively significant. Compared to an out-of-SOCAB landfills No Action Alternative with a rail haul route that did not include Coachella Valley, the air quality impacts of the Proposed Action in Coachella Valley would not be cumulatively significant because mixing and dispersion are good in Coachella Valley, particularly during the O_3/smog season; and because during the winter months with lower inversions and shallower mixing layers, the lower sun angle, shorter days, and lower ambient temperature reduce O_3 formation.

IMPERIAL COUNTY

There are few exceedances of the ambient air quality standards for O_3 in Imperial County (see Table 3-15 of the DEIS/EIR). As a result, Imperial County is in only moderate state nonattainment for O_3 and transitional federal nonattainment for O_3 as shown in Response Table 1. This is mainly because of the small population and relatively few emitting sources. NO_x and ROG emissions in Imperial County each average about 60,000 lbs/day (Imperial County, 1992). Project-related trains would emit less O_3 precursors in Imperial County than in Coachella Valley (see Response Table 5) because the rail haul distance is only 63 miles compared to 76 miles. The primary source of the few O_3 exceedances in Imperial County that do occur is airborne transport of O_3 and its precursors from Mexicali and SOCAB (through Coachella Valley, CARB, 1993a). Therefore, the key factor for reducing O_3 exceedances in Imperial County is reduction of airborne transport.

Air quality characteristics in Imperial County are generally consistent with Coachella Valley. Mixing and dispersion are comparable, especially during the O_3/smog season. The inversion height ranges between 15,000 and 17,000 feet AMSL during the afternoon, when O_3 concentration is highest, as shown in Response Table A.1 of Attachment A (NOAA, 1992).

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Response to Comment No. 21 (Cont'd)

RESPONSE TABLE 5

ESTIMATED MSW RESIDUE TRANSPORTATION-RELATED EMISSIONS[1] (LBS/DAY)

LOCATION/SOURCE	NO_x	ROG	PM_{10}	SO_x	CO
SOCAB					
Trucks	540	110	60	16	420
LATC	330	30	30	5	140
Trains	1,480	60	30	50	270
Total SOCAB	2,350	200	120	70	830
Coachella Valley (trains)	880	30	20	30	160
Imperial County (trains)	680	30	20	20	120
TOTAL	3,910	260	160	130	1,110

(1) At 20,000 tons per day for Year 100. Revised from Table 4-13 in the DEIS/EIR, which was the same as Table 6.13 in Appendix F (Air Quality Analysis) of the DEIS/EIR. NO_x emission rates reduced by 55 percent after the year 2005 in accordance with the AAR proposal to EPA (AAR, 1994).

Response to Comment No. 21 (Cont'd)

O_3 formation resulting from local emissions is low due to dilution in the deep mixing layer formed below the summer inversion height. This deep mixing layer would also dilute the low project-related train emissions within Imperial County, and discourage O_3 formation. Although lower inversions occur during winter months, O_3 concentrations are lower because less solar energy is available to drive photochemical reactions, as discussed earlier for Coachella Valley.

As noted above, the CARB-approved Urban Airshed Model cannot be used to analyze O_3 generation from emissions in nonurban areas. As a result, a Salton Trough mixing volume model was used to predict rail haul emissions in Coachella Valley and Imperial County (see Attachment A). The calculations show that the O_3 mass per unit time resulting from reaction of O_3 precursor emissions from the trains in the Salton Trough would be less than the incremental decrease of O_3 precursor mass per unit time transported by the atmosphere from SOCAB under the in-SOCAB landfills No Action Alternative. As a result of this net benefit, the emission of O_3 precursors by Proposed Action trains would not be cumulatively significant when compared to the in-SOCAB landfills No Action Alternative.

On days with no transport of air from SOCAB, the project-related emissions from rail haul trains shown on Response Table 6 would increase ambient NO_x and O_3 concentrations by only 0.007 and 0.09 percent of the NO_x and O_3 CAAQS as shown in Response Table A.4. These small increments would not make a substantial contribution to existing or projected violations in Imperial County, nor would they cause a substantial delay in attainment of air quality standards in the area. Again, this is especially true because exceedances typically only occur during periods of airborne transport. Hence, the emissions of O_3 precursors from project-related trains would not be cumulatively significant.

The air quality effects of the Proposed Action would be similar to the air quality effects of the out-of-SOCAB landfills No Action Alternative, for rail haul through Imperial County. Therefore, these effects would not be cumulatively significant. Compared to an out-of-SOCAB landfills No Action Alternative with a rail haul route that did not include Imperial County, the air quality impacts of the proposed rail haul

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RESPONSE TABLE 6

PROJECT-RELATED TRAIN EMISSIONS IN IMPERIAL COUNTY WITHOUT CONSIDERING AIRBORNE TRANSPORT

CASE (EXCLUDING SITE)	EMISSION RATE (lbs/day)				
	NO_x	ROG	PM_{10}	SO_x	CO
Proposed Action					
• Current Technology Trains (1)	2,770	90	60	40	270
• DEIS/EIR/30% NO_x Control on Trains (1)	1,940	90	60	40	270
• AAR/55% NO_x Control on Trains (2)	680	30	20	20	120
All Sources (3)	61,600	57,000	1,900,000	3,600	250,000
Ratio of AAR Train Emissions and All Sources (Percent)	1.1	0.053	0.0011	0.56	0.048

(1) Train emissions after 2005 based on the DEIS/EIR use of four smaller locomotives (3,600 hp each) emissions factors in Booz•Allen & Hamilton (1991), and MSW residue disposal rate of 20,000 tpd.

(2) Train emissions after 2005 based on SP's planned use of two General Electric Dash 9 locomotives (4,400 hp each) Association of American Railroads (AAR), Train Energy Model (SPTC, 1994), MSW residue disposal rate of 20,000 tpd, and AAR (1994) proposed 55 percent NO_x reduction.

(3) ICAPCD (1992).

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in Imperial County would not be cumulatively significant because mixing and dispersion are good in Imperial County, particularly during the O_3/smog season; and because during the winters months with lower inversions and shallower mixing layers, the lower sun angle, shorter days, and lower ambient temperatures reduce O_3 formation.

Pollutants would also be emitted from the proposed landfill site. The DEIS/EIR analysis included detailed dispersion modeling and indicated that these site emissions would not cause ground level ambient air concentrations that would violate federal or state ambient air quality standards (AAQS) at or beyond the project boundary as shown in Response Table A.5. In addition, the good mixing conditions associated with the generally high inversion layer would reduce the potential for these emissions to form O_3. The mixing volume model used for trains was also used to estimate the maximum O_3 concentration that could be generated within an appropriate mixing volume by the precursor emissions from the site. As shown in Response Table A.6, site emissions of precursors could potentially cause a maximum O_3 concentration that would be approximately 0.4 percent of the CAAQS. This concentration could only result from the conservative assumption that, at most, four molecules of O_3 might be generated from one precursor molecule (Lurmann, 1994). The resulting O_3 concentration is too small to make a substantial contribution to existing or projected violations in Imperial County, nor would they cause a substantial delay in attainment of air quality standards. Hence, site emissions of ozone precursors would not be cumulatively significant.

Because airborne transport is considered to be a major source of O_3 in Imperial County (CARB, 1993a), reduction of O_3 formation in SOCAB by implementation of the Proposed Action would contribute to a reduction in airborne transport of O_3 from SOCAB through the Salton Trough, compared to the In-SOCAB landfills No Action Alternative. This reduction would contribute to a reduction in the number of O_3 exceedances in Imperial County, and hence help achieve attainment of AAQS in accordance with the Air Quality Attainment Plan developed by the Imperial County Air Pollution Control District (APCD). The reduction of airborne transport into Imperial County would help to offset the very small potential O_3

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generation at the site and is an important benefit of the Proposed Action. The reduction in O_3 transport from the Proposed Action would be similar to the reduction in O_3 transport from the out-of-SOCAB No Action Alternative.

Because of the potential for a reduction in O_3 transport from SOCAB to Imperial County and because the rail haul and site emissions of O_3 precursors would not cause a substantial increase in ground-level O_3 concentrations (see Response Tables A.4 and A.6), implementation of the Proposed Action would not be cumulatively significant.

PM_{10} IMPACTS

SOCAB

As discussed in the DEIS/EIR, SOCAB is in state and federal nonattainment for PM_{10} (see Response Table 1). The substitution of trains for a portion of the transport of MSW residue within SOCAB and the relocation of landfill emissions outside of the basin would reduce PM_{10} emissions from 450 to 120 lbs/day under the Proposed Action and the out-of-SOCAB landfills No Action Alternative as shown in Response Table 7. Therefore, the DEIS/EIR concluded the following:

- The Proposed Action would improve air quality in the SOCAB compared to the in-SOCAB landfills No Action Alternative, and
- The Proposed Action would have similar beneficial air quality effects within the SOCAB to the out-of-SOCAB landfills No Action Alternative.

Therefore, the Proposed Action would not result in cumulatively significant air quality impacts in SOCAB.

COACHELLA VALLEY

The Coachella Valley is in "serious" federal nonattainment and is classified as "nonattainment" for state standards (see Response Table 1). The climate in the area is generally arid and PM_{10} concentrations on windy days can be 200 $\mu g/m^3$ (24-hour average), which is four times the California 24-hour standard. Key sources of PM_{10} emissions in Coachella Valley are disturbed desert areas and farm lands. Response Table 7 shows that the Coachella Valley PM_{10} emissions inventory averages 915,000 lbs/day. On windy days, this emission rate increases

RESPONSE TABLE 7

COMPARISON OF PROPOSED ACTION AND NO ACTION ALTERNATIVE MAXIMUM ANTICIPATED EMISSIONS[1] WITHOUT CONSIDERING AIRBORNE TRANSPORT (LBS/DAY)

LOCATION	SOURCE	NO_x	ROG	PM_{10}	SO_x	CO
SOCAB	Proposed Action[2]	2,350	200	120	70	820
	No Action Alternative[2]	4,080	970	450	570	2,620
	All Sources in SOCAB[3] (1987)	2,600,000	3,200,000	2,150,000	250,000	13,500,000
SEDAB Coachella Valley	Proposed Action	880	30	20	30	60
	No Action Alternative	0	0	0	0	0
	All Sources in Coachella Valley (1987)	120,000[4]	314,000[4]	915,000[5]	17,000[4]	900,000[4]
SEDAB Imperial County	Proposed Action					
	Site	2,070	550	210	400	1,270
	Employee/Service Vehicles	180	20	10	10	170
	Trains	680	30	20	20	120
	Total	2,930	600	240	430	1,560
	No Action Alternative	0	0	0	0	0
	All Sources in Imperial County (1987)[6]	61,600	57,000	1,900,000	3,600	250,000

91-296 (2/7/95/pm)

(1) Based on disposal of 20,000 tons per day of "As Received" MSW residue in Year 100 with boiler/generation energy recovery system to treat landfill gas.

(2) Emissions between MSW generators and transfer/compactor stations are identical for Proposed Action project and "No Action" alternatives. After the trucks leave these stations, the emissions are summed to provide the values in this table.

(3) SCAQMD, 1994.

(4) SCAQMD, 1991.

(5) SCAQMD, 1990.

(6) ICAPCD, 1992.

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substantially (SCAQMD, 1990). The project-related trains would emit 20 lbs/day in the Coachella Valley when the Proposed Action is operating at 20,000 tons per day (10 one-way train trips per day). Each individual project-related train trip would emit 2 pounds of PM_{10} over a 76-mile stretch of track (0.026 pounds or 12 grams per mile). This emission rate is approximately 0.002 percent of the total Coachella Valley PM_{10} emissions inventory and would not increase the number or extent of Coachella Valley exceedances.

The reduction of emissions in SOCAB from the Proposed Action relative to the in-SOCAB landfills No Action Alternative would also help reduce the creation of PM_{10} by reactions of its precursors (NO_x, ROG, and sulfur oxides [SO_x]). These reactions create nitrate, organic, and sulfate particles, respectively, through gas-to-aerosol conversions. The resulting particles are extremely small (0.001 to 0.1 micrometer in diameter) and are transported long distances by the atmosphere, including through Banning Pass to the Coachella Valley. The reductions in SOCAB of the Proposed Action and the out-of-SOCAB landfills No Action Alternative (see Response Table 2), and the consequent reduction of PM_{10} generated by gas-to-aerosol conversion and transported by the atmosphere to the Coachella Valley would offset the emission of 20 lbs/day of PM_{10} from the trains, if only 0.6 percent of the reduced PM_{10} and precursor emissions were transported from the SOCAB through Banning Pass. A similar effect would occur under the out-of-SOCAB No Action Alternative. Because the air basin is aligned with the air flow path from the center of Los Angeles across SOCAB and through Banning Pass (see Response Figure 4), more than 0.6 percent of the reduced PM_{10} and precursor emissions would be transported by the atmosphere into Coachella Valley with the Proposed Action or the out-of-SOCAB landfills No Action Alternative.

As shown in Response Table 8, if the mixing volume model is applied to PM_{10} in SOCAB, Coachella Valley, and Imperial County the same way it was applied earlier for O_3 precursors, the Coachella Valley mass transport rates that could be added by trains would be less than the reduction in the mass per unit time transported from SOCAB into the Salton Trough attributable to the Proposed Action. Therefore, the Proposed Action would result in a net decrease of PM_{10} in Coachella Valley compared to the in-SOCAB landfills No Action Alternative, and cumulative

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impacts would be beneficial and not significant. Compared to a out-of-SOCAB landfills No Action Alternative with rail haul along the SP Main Line through Coachella Valley, the beneficial effects and train emissions would be similar, and cumulative impacts would not be significant. Compared to an out-of-SOCAB landfills No Action Alternative with no rail haul through Coachella Valley, the beneficial effects of reduced transport would be similar, but train emissions from the Proposed Action would impact Coachella Valley versus a different area. Nevertheless, the train emissions from the Proposed Action in Coachella Valley would not be cumulatively significant because the emission of 12 grams of PM_{10} per mile ten times per day would not increase the number or extent of Coachella Valley exceedances. Hence, project-related trains would not contribute to cumulatively significant PM_{10} impacts in Coachella Valley.

IMPERIAL COUNTY

Imperial County is classified as "moderate" federal nonattainment for PM_{10} and classified as "nonattainment" for state standards (see Response Table 1). Imperial County has similar climate and characteristics to Coachella Valley. Like that area, disturbed desert areas and farm lands are key contributors to PM_{10} emissions. Response Table 7 shows that the PM_{10} emissions inventory in Imperial County is approximately 1,900,000 lbs/day (ICAPCD, 1992). This rate increases substantially on windy days (E.H. Pechan & Associates, Inc., 1993). Potential project contribution to cumulatively significant PM_{10} impacts are analyzed separately for the train travel in Imperial County and for the site.

Train emissions of 15 lbs/day of PM_{10} in Imperial County (rounded to 20 lbs/day in Response Table 6) would be only 0.0008 percent (8 millionths) of the county emission inventory. Similar to Coachella Valley, this total PM_{10} emission rate is equivalent to 0.026 pounds or 12 grams per train per mile of travel. This extremely small emission rate could only potentially cause an ambient concentration of 0.0008 $\mu g/m^3$ (see Response Table A.4), which is 0.0016 percent of the PM_{10} CAAQS. This minor concentration is not substantial. Hence, as described for Coachella Valley, this PM_{10} emission would not be cumulatively significant.

RESPONSE TABLE 8

COMPARISON OF PROPOSED ACTION AND NO ACTION ALTERNATIVE INCREMENTAL CONCENTRATIONS ($\mu g/m^3$) AND MASS TRANSPORT RATES (g/sec)

LOCATION	SOURCE	NO_x		ROG		PM_{10}		SO_x		CO	
		Concentration	MTR[2]	Concentration	MTR[2]	Concentration	MTR[2]	Concentration	MTR[2]	Concentration	MTR[2]
SOCAB	Proposed Action[1]	0.15	12.3	0.013	1.07	0.0076	0.62	0.0044	0.36	0.052	4.3
	No Action Alternative[1]	0.26	21.4	0.061	5.0	0.029	2.4	0.036	3.0	0.17	14.0
SEDAB Coachella Valley	Proposed Action	0.035	9.1	0.0014	0.37	0.0008	0.21	0.0013	0.34	0.0066	1.7
	No Action Alternative	0	0	0	0	0	0	0	0	0	0
SEDAB Imperial County	Proposed Action • Imperial Valley Rail Line Site	0.035 0.2	9.1 --[3]	0.0014 0.05	0.37 - -	0.0008 0.02	0.21 - -	0.0014 0.04	0.34 - -	0.0066 0.13	1.7 - -
	No Action Alternative	0	0	0	0	0	0	0	0	0	0

91-296 (2/5/95/rmm)

(1) Emissions between MSW generators and transfer/compactor stations are identical for Proposed Action project and "No Action" alternatives. After the trucks leave these stations, the emissions are summed to provide the values in this table.

(2) MTR = Mass transport rate through mixing volume.

(3) -- = Not applicable.

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The DEIS/EIR determined that site PM_{10} emissions amount to only 0.01 percent of the Imperial County inventory. These emissions would not exceed AAQS as shown in Response Table A.5 for the detailed dispersion modeling. As shown in Response Table A.6, the ambient concentration in the mixing volume would increase by 0.02 $\mu g/m^3$, which is 0.04 percent of CAAQS and not substantial. In addition, according to the wind directions in Imperial County (see Figure 3-26 and Table 2.1 in Appendix F of the DEIS/EIR), site PM_{10} emissions would rarely be able to contribute to PM_{10} concentrations in populated areas. As noted earlier from atmospheric dispersion modeling of the site, most (75 percent) of the PM_{10} emissions would be expected to settle within approximately two miles of the landfill. Compared to the tiny size particles of PM_{10} caused by gas-to-aerosol conversions in SOCAB, most of the PM_{10} particles at the site are large and emitted near the ground. However, while site emissions would not be expected to have an impact on off-site populated areas, PM_{10} impacts in Imperial County would be cumulatively significant based on the quantity of PM_{10} that would be continuously emitted over a period of 100 years. Therefore, an extensive on-site PM_{10} mitigation program, including the measures described in the DEIS/EIR, would be required for project implementation by the CUP for the Proposed Action. Even with the implementation of this mitigation program, on-site PM_{10} emissions would remain cumulatively significant.

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ATTACHMENT A

This attachment contains a calculation of the incremental concentrations of O_3 precursors (NO_x and ROG) that are generated in SOCAB and Salton Trough from the emissions of the No Action Alternative and the Proposed Action. The calculation is focused on the O_3 precursor emissions, and resulting O_3 concentrations, of the No Action Alternative and Proposed Action to determine the difference or change in the airborne transport-related to the project. The precursors of O_3 are analyzed together because both are involved in generating O_3. The approach in this analysis is to define a representative mixing volume in each of the geographic areas and to calculate the mean concentration of O_3 precursors that would result if specified emissions were mixed throughout the volume. The theory used for this approach is based on conservation of mass for a mixing volume represented as a rectangular box with length L, width W, and height (depth) H as shown in Response Figure A.1 for SOCAB. If the emission rate of O_3 precursors into the volume is E, and the mean wind speed through the volume is u, then the resulting mean concentration of O_3 precursors throughout the volume is given by the following relation:

$$C = \frac{E}{WHu} \qquad (1)$$

where:

- C = Concentration of O_3 precursors $[ML^{-3}]$(1) ($\mu g/m^3$)(2)
- E = Emission rate of O_3 precursors $[MT^{-1}]$ (lb/dy)
- W = Width (crosswind) of mixing volume [L] (miles)
- H = Mixing height of volume [L] (feet)
- u = Mean wind speed through the volume $[LT^{-1}]$ (miles per hour)

A conservative aspect of this model is that O_3 precursor molecules are not allowed to be lost by reactions or deposition to the ground, which are real processes that reduce concentrations in the atmosphere.

The width and minimum afternoon mixing depth of the mixing volume for SOCAB are approximately 30 miles and 2,500 feet, respectively

(1) Brackets [ ] contain the dimensions of the variable where M = mass, L = length, and T = time.
(2) Parentheses ( ) contain example units.

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(see Response Figure A.1). The mean sea breeze wind speed is assumed to be 5 mph.[3] If the combined emission rate of O_3 precursors shown in Response Figure 2 are used in Equation 1, then we get the following incremental concentration for the No Action Alternative:

$$C_{S1} = \frac{5{,}050 \text{ lb/dy} \times 10^9 \text{ µg/kg}}{30 \text{ mi} \times 2{,}500 \text{ ft} \times 5 \text{ mi/hr} \; (5{,}280 \text{ ft/mi})^2 \; (0.3048 \text{ m/ft})^3 \times 24 \text{ hr/dy} \times 2.2 \text{ ll}}$$

$$C_{S1} = 0.32 \text{ µg/m}^3$$

where $C_{S1} = O_3$ precursor concentration increment caused by No Action Alternative [ML^{-3}] (µg/m³).

Applying Equation 1 to the Proposed Action, we get the following incremental concentration:

$$C_{S2} = 2{,}550 \text{ lb/dy} \times 6.4 \times 10^{-5} \frac{\text{µg/m}^3}{\text{lb/dy}}$$

$$C_{S2} = 0.16 \text{ µg/m}^3$$

where $C_{S2} = O_3$ precursor concentration increment caused by Proposed Action [ML^{-3}] (µg/m³).

The Proposed Action would change (reduce) the incremental concentration of O_3 precursors transported out of SOCAB by the atmosphere as follows:

$$\Delta C = C_{S2} - C_{S1}$$
$$= 0.16 - 0.32 = -0.16 \text{ µg/m}^3$$

This change in incremental concentration is a representative average because the width and depth of the mixing volume, as well as the wind speed, vary from day to day. The important observation is that the increment is reduced by the Proposed Action. To continue the application of conservation of mass between SOCAB and the Salton Trough, the decrease in concentration is translated into the decrease in mass per unit time leaving SOCAB with the following relationship:

$$\Delta M_t = \Delta C \; WHU \qquad (2)$$

(3) Taken from Table 2.13 in Appendix F (Air Quality Analysis) of the DEIS/EIR.

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where ΔM_t = change in O_3 precursor mass per unit time leaving SOCAB mixing volume [MT^{-1}] (µg/hr).

$$\Delta Mt = -0.16 \text{ µg/m}^3 \; 30 \text{ mi} \; (5{,}280 \text{ ft/mi})^2 \; (0.3048 \text{ m/ft})^3 \cdot 2{,}500 \text{ ft} \cdot 0.5 \text{ mi/hr}$$
$$\Delta M_t = -4.7 \times 10^{10} \text{ µg/hr}$$

This amount of decrease in mass per unit time being transported by the atmosphere out of SOCAB will be translated into the decrease in concentration transported through the Salton Trough after mixing volume dimensions are defined to represent the trough.

As a volume of air from SOCAB with reduced O_3 precursor concentration were to move down the Salton Trough at a wind speed of 8 mph[4], rail haul trains would move through the volume at an assumed speed of 50 mph, and directly emit O_3 precursors into the volume. To calculate how much O_3 precursor would be emitted into this volume, the number of trains passing through the volume during the transit of the air volume down Salton Trough is calculated as follows:

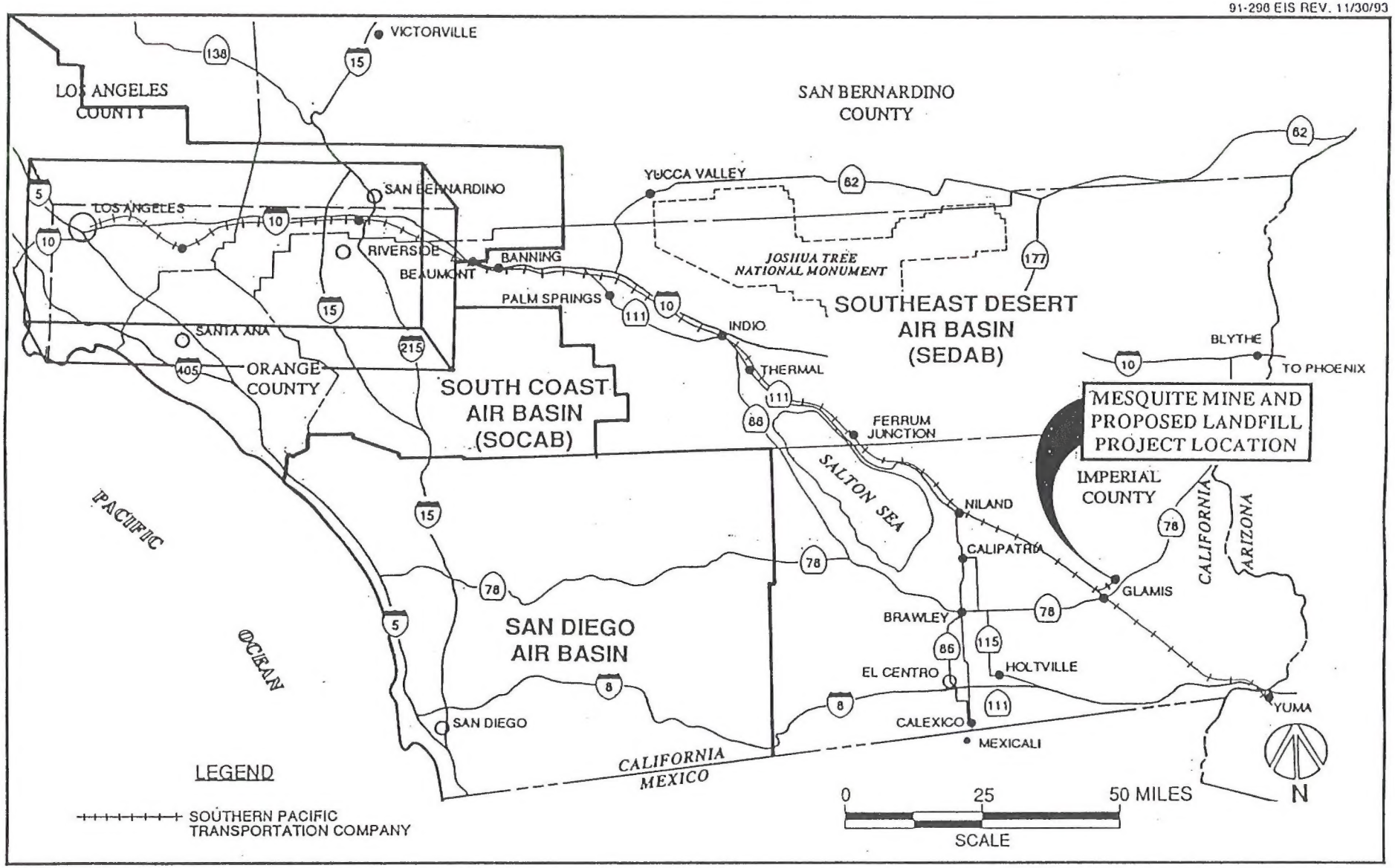
The time it takes for a volume of air shown at the head of the Salton Trough (upper left end of mixing volume shown in Response Figure A.2) to reach the lower end of the Salton Trough is given by the following relation:

$$\Delta t_c = \frac{L}{u_c} \qquad (3)$$

where

Δt_c = Time for an air parcel to traverse the length of the Salton Trough [T] (hrs)
L = Length of Salton Trough along rail line [L] (miles)
u_c = Mean wind speed down the Salton Trough [LT^{-1}] (mph)

(4) Table 2.13 from Appendix F (Air Quality Analysis) of DEIS/EIR.



SOURCE: Environmental Solutions, Inc. 1992

Proposed Mesquite Regional Landfill

Regional Location Map

FIGURE **A-1**

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The length of the trough along the rail line is approximately 136 miles, and hence, the transit time for the air parcel is calculated with Equation 3 as follows:

$$\Delta t_c = \frac{136 \text{ miles}}{8 \text{ mph}} = 17 \text{ hours}$$

In a 24-hour period, five trains haul MSW residue to the proposed landfill and return to SOCAB. On average, one eastbound train passes through the Salton Trough every 4.8 hours. Hence, in the time it takes for an air parcel to move down the length of the trough, four eastbound and four westbound trains would be able to pass through a volume of air, adding their emissions.

If we consider the air parcel in Response Figure A.2 to have a length of Δx, width W, and height (depth) H, then an eastbound train passing through it has a speed relative to the parcel of $v-u_c$, while a westbound train passing through it has a relative speed of $v+u_c$, where v is the speed of the train.

The time required for an eastbound train to pass through the parcel is therefore given by:

$$\Delta t_E = \frac{\Delta x}{v-u_c} \qquad (4)$$

and the time required for a westbound train to pass through it is given by the following expression:

$$\Delta t_W = \frac{\Delta x}{v+u_c} \qquad (5)$$

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The final concentration of O_3 precursors added to the air parcel by the time it moves through the Salton Trough is given by the following expression:

$$C_T = \frac{4\,(E_E\,\Delta t_E + E_W\,\Delta t_W)}{WH\Delta x}$$

$$= \frac{4\left(E_E\frac{\Delta x}{v-u_c} + E_W\frac{\Delta x}{v+u_c}\right)}{WH\Delta x}$$

$$C_T = \frac{4}{WH}\left(\frac{E_E}{v-u_c} + \frac{E_W}{v+u_c}\right) \qquad (6)$$

where:

C_T = Ambient concentration of O_3 precursors added to Salton Trough atmosphere by trains hauling MSW residue [ML^{-3}] ($\mu g/m^3$)
E_E = Emission rate of each eastbound train [MT^{-1}] (lb/day)
E_W = Emission rate of each westbound train [MT^{-1}] (lb/day)

The emission rates E_E and E_W are determined by the total emissions of a train within the Salton Trough and the time it takes a train to pass through the trough. The transit time is given by the following expression:

$$\Delta t_T = \frac{L}{v} \qquad (7)$$

The AAR Train Energy Model was used by Southern Pacific Transportation Company (1994) to give the total mass of O_3 precursors emitted into the Salton Trough by one train as shown in Response Tables A.1 and A.2 for eastbound and westbound trains, respectively. The model uses emission factors for criteria air pollutants that are based on a unit volume (e.g., gallon) of diesel fuel, specification of the number and type of locomotives, mass of material being hauled, and length of each haul segment. The emission rates are given by the following expressions:

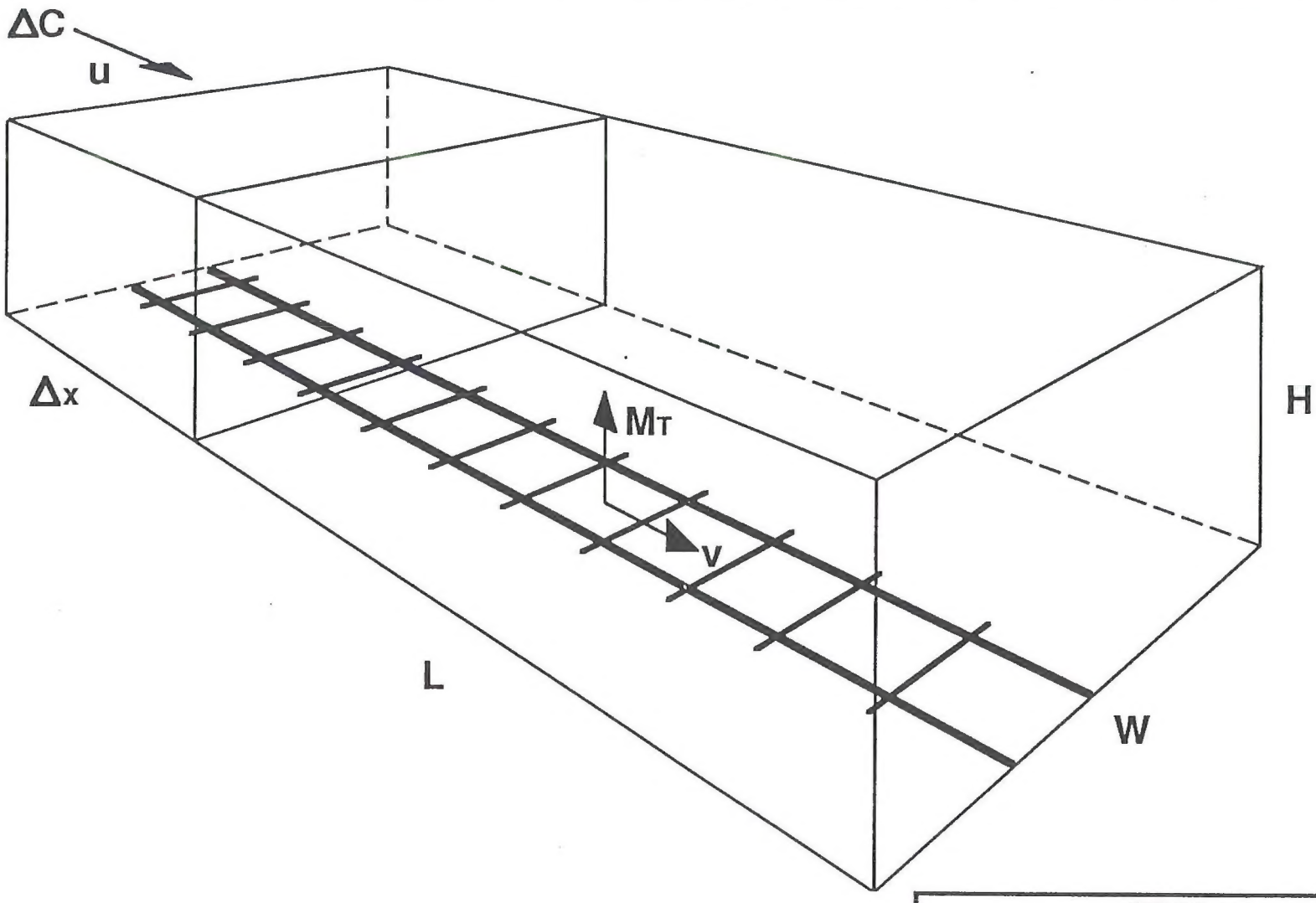

FIGURE A.2

MIXING VOLUME MODEL SCHEMATIC

MESQUITE REGIONAL LANDFILL

RESPONSE TABLE A.1

EASTBOUND TRAIN EMISSIONS[1]
(lb/day)

LOCATION/SOURCE	NO_x	ROG	PM_{10}	SO_x	CO
SOCAB					
Current-Technology Train	590	10	6	9	47
AAR/55% NO_x Controlled Train	266	10	6	9	47
All Sources in SOCAB[2] (1987)	2,600,000	3,200,000	2,150,000	250,000	13,500,000
COACHELLA VALLEY					
Current-Technology Train	53	1	1	1	5
AAR/55% NO_x Controlled Train	24	1	1	1	5
All Sources in Coachella Valley (1987)	120,000[3]	314,000[3]	915,000[4]	17,000[3]	900,000[3]
IMPERIAL COUNTY					
Current-Technology Train	229	4	2	4	20
AAR/55% NO_x Controlled Train	103	4	2	4	20
All Sources in Imperial County (1987)[5]	61,600	57,000	1,900,000	3,600	250,000

91-296 (1/30/95/jtw)

(1) Based on one train weighing 3,074 tons and carrying 4,000 tons per day of "As Received" MSW residue (total of 7,074 tons), and AAR Train Energy Model (SPTC, 1994). Direction differences between Tables A.2 and A.3 caused by uphill/downhill and loaded/unloaded differences.

(2) SCAQMD, 1994.

(3) SCAQMD, 1991.

(4) SCAQMD, 1990.

(5) Imperial County, 1992.

RESPONSE TABLE A.2

WESTBOUND TRAIN EMISSIONS[1]
(lb/day)

LOCATION/SOURCE	NO_x	ROG	PM_{10}	SO_x	CO
SOCAB					
Current-Technology Train	67	1	1	1	5
AAR/55% NO_x Controlled Train	30	1	1	1	5
All Sources in SOCAB[2] (1987)	2,600,000	3,200,000	2,150,000	250,000	13,500,000
COACHELLA VALLEY					
Current-Technology Train	337	6	3	5	28
AAR/55% NO_x Controlled Train	152	6	3	5	28
All Sources in Coachella Valley (1987)	120,000[3]	314,000[3]	915,000[4]	17,000[3]	900,000[3]
IMPERIAL COUNTY					
Current-Technology Train	74	1	1	1	5
AAR/55% NO_x Controlled Train	33	1	1	1	5
All Sources in Imperial County (1987)[5]	61,600	57,000	1,900,000	3,600	250,000

91-296 (1/30/95/jtw)

(1) Based on one train carrying no MSW residue (weighing 3,074 tons), and AAR Train Energy Model (SPTC, 1994). Direction differences between Tables A.2 and A.3 caused by uphill/downhill and loaded/unloaded differences.

(2) SCAQMD, 1994.

(3) SCAQMD, 1991.

(4) SCAQMD, 1990.

(5) Imperial County, 1992.

Response to Comment No. 21 (Cont'd)

$$E_E = \frac{M_E}{\Delta t_T} \quad (8)$$

and

$$E_W = \frac{M_W}{\Delta t_T} \quad (9)$$

where M_E, M_W = mass of O_3 precursors emitted by eastbound or westbound train [M] (lb).

Combining Equations 6 through 9, we get the following expression:

$$C_T = \frac{4}{WH\Delta t_T}\left(\frac{M_E}{v-u} + \frac{M_W}{v+u}\right)$$

$$C_T = \frac{4v}{WHL}\left(\frac{M_E}{v-u} + \frac{M_W}{v+u}\right) \quad (10)$$

These emission rates (E_E and E_W) and total emitted masses (M_E and M_W) are assumed to be the maximums from a locomotive operated at full throttle (Notch 8 position).

The width of the mixing volume in the Salton Trough is estimated from horizontal dispersion coefficients developed by Pasquill-Gifford for Gaussian modeling as shown in Response Figure A.1. At an assumed wind speed of 8 mph, the stability of the atmosphere is expected to be neutral (Class D). For an axial dispersion distance of 136 miles, the resulting horizontal dispersion coefficient (sigma y) is approximately 6.2 miles. The mixing width would be double this distance, which is approximately 12.4 miles. The height (depth) of the mixing volume is assumed to be approximately 12,000 feet, the mean mixing height given for the Salton Trough in Response Table A.3. At an assumed speed of 50 mph, a train will pass through the Salton Trough in approximately 2.7 hours. As can be seen in Response Figure 3, the dynamics of photochemical O_3 formation take place over a period of hours. The increase begins between 6 a.m. and 8 a.m. depending on the start of the commuter peak, and the initial buildup occurs over the next 3 or 4 hours. The peaks on the right side of Response Figure 3 show that the arrival and buildup of transported O_3 and its precursors also takes place over a period of several hours. A time scale of hours combined with vertical motion and the mean wind speed makes it

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 21 (Cont'd)

RESPONSE TABLE A.3

MEAN SUMMER MIXING HEIGHTS

LOCATION	MORNING (feet) amsl[5]	AFTERNOON (feet) amsl[5]
SOCAB	1,500[1] - 2,200[2]	2,500[1] - 3,400[2]
Salton Trough[3][4]	4,400 - 9,300	15,300 - 17,400

91-296 (2/3/95/db)

(1) EPA, 1972.
(2) Taylor and Marsh, 1991.
(3) NOAA, 1992. Ranges cover "smog season" months of April through October.
(4) Includes Coachella Valley and Imperial County.
(5) amsl = above mean sea level.

Response to Comment No. 21 (Cont'd)

reasonable to calculate average concentrations throughout the sizes of mixing volumes used for SOCAB, the Salton Trough, and the site.

Using Equation 10, the O_3 precursor concentration that could potentially be produced by the trains passing through the Salton Trough mixing volume is calculated as follows:

$$C_T = \frac{4 \times 50 \text{ mi/hr } 10^9 \text{ µg/kg}}{12.4 \text{ mi} \times 12{,}000 \text{ ft} \times 136 \text{ mi} \times 5{,}280^2 \text{ ft}^2/\text{mi}^2} \cdot \frac{1}{(0.3048^3 \text{ m}^3/\text{ft}^3) \times 2.2 \text{ lb/kg}} \left(\frac{132 \text{ lb}}{(50-8) \text{ mi/hr}} + \frac{192 \text{ lb}}{(50+8) \text{ mi/hr}} \right)$$

$$C_T = 0.037 \text{ µg/m}^3$$

To compare this potential increase in combined O_3 precursor concentration in the Salton Trough with the potential decrease of the incremental concentration transported by the atmosphere into the trough from SOCAB, the latter will be translated into a potential mass flow per unit time, or mass transport rate. The potential increase in O_3 precursor mass per unit time introduced by the trains and moving through the Salton Trough mixing volume will be compared with the potential decrease in mass per unit time transported out of SOCAB. Using Equation 2 with Salton Trough parameters gives the following for the potential increase:

$$\Delta M_t = 0.037 \text{ µg/m}^3 \; 12.4 \text{ mi} \; (5{,}280 \text{ ft/mi})^2 \cdot (0.3048 \text{ m/ft})^3 \; 12{,}000 \text{ ft} \cdot 8 \text{ mi/hr}$$

$$\Delta M_t = 3.5 \times 10^{10} \text{ µg/hr}$$

This potential increase is less than the potential decrease from airborne transport, producing a net decrease in O_3 precursor mass per unit time moving through the Salton Trough mixing volume.

On days when the sea breeze does not transport SOCAB O_3 and its precursors through Banning Pass and the Salton Trough, the incremental increases in concentration of NO_x, ROG, O_3, and other criteria pollutants in the Trough can be estimated with the same mixing volume model (Equation 10). The resulting ambient concentrations shown in Response Table A.4 are only 0.007, 0.09, and 0.002 percent of the CAAQS for NO_x (expressed as NO_2), O_3, and PM_{10}, respectively.

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 21 (Cont'd)

Maximum ambient concentrations that could potentially be caused by site emissions were computed with the EPA-approved Gaussian dispersion model ISCST2 in the DEIS/EIR. Response Table A.5 contains the results of the modeling for the maximum disposal rate of 20,000 tons per day and conditioning of the MSW residue to maximize landfill gas generation. The results for NO_x (expressed as NO_2), SO_2, CO, and PM_{10} are corrected from Table 6.25 of Appendix F of the DEIS/EIR. None of the ambient air quality standards would be violated.

To calculate the potential O_3 created by the photochemical reactions over several hours, the mixing volume model is used with the same emissions. Although O_3 generation can be estimated from either NO_x or ROG precursor concentrations, only NO_x is shown in Response Table A.5 (expressed as NO_2) because ROG has no ambient air quality standards. The O_3 ambient concentration is estimated from the NO_2 ambient concentration under the conservative assumption that, at most, four O_3 molecules are generated by each NO_2 molecule through photochemical reactions (Lurmann, 1994).

To estimate ambient concentrations that could be potentially generated by emissions throughout the mixing volume above the site, Equation 1 is applied to the emission rates shown in Response Table 7 of the response. The cross-wind width of the site is approximately 2.65 miles[5] and the mixing height is assumed to be 12,000 feet as used earlier for the Salton Trough calculations. The mean wind speed is assumed to be 8 mph as used earlier. An example calculation for NO_x follows:

$$C_{NO_x} = \frac{(2{,}070 \text{ lb/dy} \times 4.5359 \times 10^8 \text{ µg/lb})}{(2.65 \text{ mi} \times 1.2 \times 10^4 \text{ ft} \times 8 \text{ mi/hr} \times 24 \text{ hr/dy} \times 5{,}280^2 \text{ ft}^2/\text{mi}^2)} \times \frac{1}{0.3043^3 \text{ m}^3/\text{ft}^3}$$

$$C_{NO_x} = 0.20 \text{ µg/m}^3$$

The results of the site mixing volume calculations are shown in Response Table A.6.

(5) Taken from Figure 5.1 of Appendix F (Air Quality Analysis) to the DEIS/EIR.

RESPONSE TABLE A.4

TRAIN EMISSIONS AND AMBIENT AIR QUALITY IMPACTS IN SALTON TROUGH[1]

AIR POLLUTANT	EMISSIONS PER TRAIN[2] (lb)		RESULTING INCREASE IN AMBIENT CONCENTRATION (µg/m³)	RATIO OF INCREASE TO CAAQS (percent)	CAAQS CONCENTRATION (µg/m³) AND AVERAGING TIME
	Eastbound	Westbound			
NO_x	127	185	0.035 (0.02 ppbv)	0.007	470 (1-hour, as NO_2)
ROG	5	7	0.0014	--	NA
PM_{10}	3	4	0.0008	0.0016	50 (24-hour)
SO_x	5	6	0.0013	--	105 (24-hour, as SO_2)
CO	25	33	0.0066	--	10,000 (8-hour)
O_3	--	--	0.16 (0.08 ppbv)	0.09	180 (1-hour) (90 ppbv)

91-296 (2/17/95/pm)

(1) Revised from Table 4-15 in the DEIS/EIR to account for the change from four 3,600 hp locomotives and Booz•Allen & Hamilton (1991) emission factors to the use of two General Electric Dash 9 (4,400 hp) locomotives, Train Energy Model of the Association of American Railroads (AAR), and 55 percent NO_x reduction proposed by AAR to EPA (AAR, 1994).

(2) Direction differences caused by uphill/downhill and loaded/unloaded differences.

-- = Not Applicable.

RESPONSE TABLE A.5

ESTIMATED MAXIMUM OFFSITE GROUND-LEVEL AIR POLLUTANT CONCENTRATIONS WITH "CONDITIONED" MSW RESIDUE

AIR POLLUTANT	AVERAGING PERIOD	BACKGROUND CONCENTRATION ($\mu g/m^3$)	MAXIMUM PROJECT CONCENTRATION ($\mu g/m^3$)		TOTAL CONCENTRATION ($\mu g/m^3$)		CALIFORNIA AMBIENT AIR QUALITY STANDARDS ($\mu g/m^3$)	NATIONAL AMBIENT AIR QUALITY STANDARDS ($\mu g/m^3$)
			Year 16	Years 85/100	Year 16	Years 85/100		
NO_2	1-hour	73.3 (1)	6.8	2.6	80.1	75.9	470	- -
	Annual Arithmetic Mean	5.6 (2)	0.09	0.02	5.7	5.6	- -	100
SO_2	1-hour	Negligible	3.9	1.5	3.9	1.5	655	- -
	3-hour	Negligible	3.5 (3)	1.4 (3)	3.5	1.4	- -	1,300
	24-hour	Negligible	0.7	0.25	0.7	0.25	131	365
	Annual Arithmetic Mean	Negligible	0.05	0.01	0.05	0.01	- -	80
CO	1-hour	Negligible	0.04	0.01	0.04	0.01	23,000	40,000
	8-hour	Negligible	0.03 (4)	0.01 (4)	0.03	0.01	10,000	10,000
PM_{10}	Annual Arithmetic Mean	28.0 (6)	2.7	4.4	30.7	32.4	- -	50
	Annual Geometric Mean	21.1	2.7	4.4	23.8	25.5	30	- -
	24-hour	21.1 (5)	27.0	22.0	48.1	43.1	50	150

91-296 (2/7/95/pm)

(1) Highest 1-hour concentration measured at Mesquite Mine well field on October 6, 1992, during a sampling program conducted from May 1992 through May 1993.

(2) Annual arithmetic mean measured at Mesquite Mine well field during the period May 1992 through May 1993.

(3) Estimated as 90 percent of the 1-hour mean SO_2 concentration computed with ISC2, where 0.9 is scaling factor approved by CARB and EPA (CAPCOA, 1987).

(4) Estimated as 70 percent of the 1-hour mean CO concentration computed with ISC2, where 0.7 is scaling factor approved by CARB and EPA (CAPCOA, 1987).

(5) Annual geometric mean is an appropriate background concentration to add to 24-hour maximum project concentration because the latter occurs under low wind speeds of
0.4 to 2.4 miles per hour, while high 24-hour background concentrations occur only with high wind speeds.

(6) Annual arithmetic mean based on Mesquite Mine monitoring from 1985 through 1993.

-- = None

RESPONSE TABLE A.6

SITE EMISSIONS AND AMBIENT AIR QUALITY IMPACTS

AIR POLLUTANT	EMISSIONS (lbs/dy)	RESULTING INCREASE IN AMBIENT CONCENTRATION ($\mu g/m^3$)	RATIO OF INCREASE TO CAAQS (percent)	CAAQS CONCENTRATION AND AVERAGING TIME ($\mu g/m^3$)
NO_x	2,070	0.20 (0.10 ppbv)	0.04	470 (1-hour, as NO_2)
ROG	550	0.05	--	None
PM_{10}	210	0.02	0.04	50 (24-hour)
SO_x	400	0.04	--	105 (24-hour, as SO_2)
CO	1270	0.13	--	10,000 (8-hour)
O_3	0	0.8 (0.40 ppbv)	0.4	180 (1-hour) (90 ppbv)

91-296 (2/17/95/pm)

-- = Not Applicable

Response to Comment No. 21 (Cont'd)

REFERENCES

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RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 21 (Cont'd)

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Taylor, George H. and Stanley L. Marsh, Jr. An Inversion Climatology for the Los Angeles Basin, Seventh Joint Conference on Applications of Air Pollution Meteorology with Air and Waste Management Association, American Meteorological Society, New Orleans, Louisiana, January 14-18, 1991.

Response to Comment No. 22

The cumulative traffic impacts identified in this EIS/EIR are the result of off-highway vehicle (OHV) enthusiasts in the vicinity of Glamis. There is no evidence that the facilities suggested by the commentor would have any affect on winter weekend traffic levels in the vicinity of Glamis.

The Draft EIS/EIR includes a mitigation measure that the Applicant schedule all deliveries of a non-emergency nature to avoid the period beginning the afternoon before and ending the morning after holiday weekends between October 1st and May 31st of each year. During such periods, project-related traffic in the vicinity of Glamis would be limited to employee commutes.

Response to Comment No. 23

The proposed project was planned assuming that long-term recycling and waste reduction will occur. Use of host fees to support local recycling efforts and related public services would not reduce the size of the proposed project because the vast majority of the MSW residue that would be landfilled at the proposed facility would come from outside of Imperial County. This EIS/EIR considered the visual impacts of a smaller landfill at the proposed site. These impacts were also found to be significant.

reduce the future need for major alterations of the Valley's natural surroundings to accommodate solid waste disposal.

Finally, acceptance of this major landfill in Imperial County will identify the Valley as the repository for solid waste from the Los Angeles basin. Although difficult to estimate, a negative economic impact may result from the establishment of this image. The desirability of the Valley as a destination for tourists and recreation seekers may be reduced if they identify the Valley as a major recipient of solid waste in Southern California. Host fees could be used to promote other attractive features of the Valley to offset the negative economic impacts of the landfill.

24

25

In summary, sharing of the host fees represents a key mitigation measure to offset unmitigated impacts of the regional landfill. The use of host fees as a mitigation measure is not presently recommended in the EIS/EIR, yet the existence of significant unmitigated impacts calls for consideration of all feasible sources of mitigation. Under these conditions, an equitable formula for sharing the host fees between the County and cities is an essential mitigation measure that must be included in the EIS/EIR and as a condition of associated project permits prior to approval for the regional landfill project.

Our review of the EIS/EIR is still in progress and we will be submitting a second letter with additional comments before the end of the public review period on July 6, 1994.

RESPONSE TO JOINT COMMENT LETTER RECEIVED FROM THE CITY OF BRAWLEY, CITY OF CALEXICO, CITY OF EL CENTRO, AND CITY OF HOLTVILLE (CONTINUED)

Response to Comment No. 24

There is no credible evidence that the establishment of a regional Class III Municipal Solid Waste Landfill in Imperial County would negatively impact tourism, especially since the proposed landfill would be located in a remote area. Operating Class III landfills exist in all or most counties in the country with no documented evidence that they negatively impact tourism or business creation. Imperial County currently has 11 operating Class III landfills.

Response to Comment No. 25

Comment noted. If the project is approved, any host fees paid by the Applicant can be used by a recipient agency to promote attractive features of Imperial Valley, or for whatever other public purposes the recipient deems appropriate. As described in the response to Comment No. 24, BLM and the County of Imperial found that impacts to tourism would not be significant. Therefore, the use of host fees to promote attractive features of Imperial Valley is not identified as a required mitigation measure in this EIS/EIR.

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RODGER L. BENNETT
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July 1, 1994

Mr. Thomas Zale
Bureau of Land Management
1661 South 4th Street
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Mr. Jurg Heuberger
County of Imperial
Planning and Building Department
939 Main Street
El Centro, CA 92243

Subject: Draft EIS/EIR for the Mesquite Regional Landfill, Imperial County, California

Dear Mr. Zale (Heuberger):

Thank you for the opportunity to review the Draft Environmental Impact Statement/Environmental Impact report (EIS/EIR) for the proposed Mesquite Regional Landfill. Several technical problems have been noted for your consideration which suggest that the environmental document is inadequate.

Executive Summary

26 1. Table S-1 of the EIS/EIR provides a summary of potential environmental effects and mitigation measures for the proposed landfill project. Page S-33 of the table indicates that Alternative I - Smaller Landfill Footprint has transportation impacts similar to those of the Proposed Action. The table goes on to indicate that the mitigation measures applied to Alternative I would be the same as those identified for the Proposed Action, but then indicates that the impact would not be significant following mitigation (NS). The discussion and conclusion regarding the transportation impact associated with Alternative I on page 4-171 of the EIS/EIR indicate that the impact is cumulatively significant following mitigation. Table S-1 should be corrected to show that the transportation impact of Alternative I is cumulatively significant (CS).

The same inconsistency exists between Table S-1 (page S-34) and the transportation impact discussion and conclusion for Alternative II - Decreased Disposal Rate on page 4-174. The table describes the impact as not significant (NS) following mitigation, but page 4-174 indicates that the transportation impact associated with this

RESPONSE TO FOUR COMMENT LETTERS RECEIVED FROM THE CITY OF BRAWLEY, SIGNED BY RODGER L. BENNETT, CITY MANAGER; CITY OF EL CENTRO, SIGNED BY ABDEL SALEM, CITY MANAGER; CITY OF HOLTVILLE, SIGNED BY KAREN G. STAUFFER, CITY MANAGER, DATED JULY 1, 1994, AND CITY OF IMPERIAL, SIGNED BY PAUL J. RICHARDS, CITY MANAGER, DATED JULY 7, 1994.

Response to Comment No. 26

Comment Noted. This typo has been corrected in this Final EIS/EIR.

alternative is cumulatively significant (CS). Table S-1 should be corrected to show that the transportation impact of Alternative I is cumulatively significant (CS).

27 2. The purpose of the Draft EIS/EIR for the proposed Mesquite Regional Landfill is to address short- and long-term environmental impacts of a major solid waste disposal project and identify mitigation measures to reduce impacts. The document identifies numerous mitigation measures aimed at reducing environmental impacts of the project in Table S-1 (Executive Summary) and in Section 4.0 Environmental Consequences, but overlooks the host fees (or import fees to be paid by the landfill owner/operator) as a source of impact mitigation. The host fees represent an essential source of project mitigation that must be shared among local governments in an equitable manner to reduce the short- and long-term impacts of the landfill on the population of the Imperial Valley.

Environmental Consequences

3. Section 4.0 Environmental Consequences concludes that all Alternatives except that the No Action Alternative will result in significant visual impacts that cannot be mitigated, and cumulatively significant air quality impacts and cumulatively significant traffic impacts that cannot be mitigated. When unmitigable impacts result from a project, the NEPA/CEQA lead agencies (Bureau of Land Management and County of Imperial) are responsible for ensuring that all feasible mitigation measures are identified and included as requirements before the project is approved.

Although many of the project's significant impacts can be mitigated, the people of the Imperial Valley are being asked to accept unmitigable project impacts related to visual resources, and unmitigable cumulative impacts related to transportation and air quality so that the population of the Los Angeles basin will have a suitable location for long-term disposition of their solid waste. The majority of the population of Imperial County accepting these impacts resides within incorporated communities -- the cities of El Centro, Brawley, Holtville, Calexico, Calipatria, Imperial, and Westmorland. Of the approximately 120,000 people presently residing in the Imperial Valley, 90,000 or 75 percent live within incorporated communities and rely upon city governments to provide many necessary urban services and facilities.

According to the Draft EIS/EIR (page 4-153), approximately 200 direct and indirect jobs will be created for workers who will choose to reside in Imperial County. These workers will be housed

Response to Comment No. 27

Please see response to Comment No. 18.

primarily within incorporated communities and city governments will be responsible for providing police protection, fire protection, recreational facilities, libraries, water and sewer service, and other municipal services to support the demand generated by workers housed in those communities.

Over the next 45 years the California Department of Finance estimates that the population of Imperial County will increase to approximately 310,000 by 2040. As the population increases over time, most of this growth will be absorbed by the existing cities. The existing and future population of these cities is being asked to accept a regional landfill that will create a mountainous landform of solid waste that will exist in perpetuity and that is predicted to have an operable life of 100 years or more. Yet, the EIS/EIR fails to recognize that such impacts might be reduced by a sharing of the host fees (or import fees) between the County of Imperial and these cities.

While host fees are mentioned as a source of revenue on page 4-152 and 4-156 the EIS/EIR, these fees are not described as mitigation for environmental impacts. The document also mentions that a
28 portion of the host fees may be allocated to the cities of Imperial County, but no use of these fees is described for mitigation of significant air quality, transportation and visual impacts. Commitment of the host fees as a mitigation measure is both a feasible and appropriate mechanism to protect the environment of the Imperial Valley. The EIS/EIR is inadequate unless this method of mitigation and a formula for sharing of the host fees is acknowledged and included in the document.

4. The Draft EIS/EIR concludes that the visual impact of the landfill is significant and cannot be fully mitigated (pages 4-127 through 4-140). While this impact is not directly experienced without being relatively close to the landfill site, this impact will exist in perpetuity and the landform created by the project will always be a reminder of the need to address the issue of solid waste disposal. This type of impact can be reduced in the future by development and application of methods to reduce the volume of material sent to landfills. The use of host fees as mitigation to
29 support local recycling efforts and related public services is a logical approach to reduce the future need for major alterations of the Valley's natural surroundings to accommodate solid waste disposal.

5. The Draft EIS/EIR concludes that project impacts on
30 socioeconomic conditions are not significant (pages 4-152 through 4-158); however, acceptance of this major landfill in Imperial County will identify the Valley as the repository for solid waste

Response to Comment No. 28

Please see response to Comment No. 18.

Response to Comment No. 29

Please see response to Comment No. 23.

Response to Comment No. 30

Please see responses to Comment Nos. 24 and 25.

from the Los Angles basin. Although difficult to estimate, a negative economic impact may result from the establishment of this image for the Valley. The desirability of the Valley as a destination for tourists and recreation seekers may be reduced if they identify the Valley as a major recipient of solid waste in Southern California. Mitigation for this potential impact should include the use of host fees to promote other attractive features of the Valley offset the negative economic impacts of the landfill.

Cumulative Effects

31 6. Section 4.7 Cumulative Effects (page 4-200) dismisses five important environmental issues from the discussion of cumulative impacts -- geology/soils/minerals, cultural resources, land use, recreational resources, and visual resources -- that the EIS/EIR identifies as issues for which the project will create significant impacts. The document states that site-specific impacts will probably exist in these issue areas for each of the identified projects on the cumulative projects list, but no explanation or reasonable basis is provided in the document for the not evaluating the cumulative effects for these important issue areas. CEQA Guidelines (Section 15130 (b)(3)) requires a reasonable analysis of the cumulative impacts of relevant projects. The EIS/EIR is incomplete and inadequate without a discussion of cumulative impacts for these five important environmental issue areas.

32 7. The Mesquite Regional Landfill project is projected to have an operational life of 100 years, yet its cumulative impacts are described only in terms of its impact plus those of ten future projects. The CEQA Guidelines (Section 15130 (b)(1)) indicate that one of two methods may be used to discuss cumulative impacts. The first is the "list" method used in the EIS/EIR and the second is the "summary of growth projections" from a planning document evaluating regional or area-wide conditions. For a project of long-term regional significance, a list of ten reasonably foreseeable, related future projects is too small for an adequate assessment of cumulative impacts.

For example, there are a number of Specific Plans (SPA) identified in the County of Imperial General Plan (1993) which are likely to develop within next 15 to 20 years which should be considered in the assessment of cumulative impacts. Projects such as the Holtville Airstrip SPA, Felicity SPA, Mesquite Lake SPA, Bravo Ranch SPA, Tamarack Canyon SPA, and Heber SPA are major development projects identified in the County General Plan, but are excluded from discussion in the EIS/EIR. Other projects, such as the Calexico East Border Crossing, are identified in the County General Plan and included in the cumulative analysis for the landfill

RESPONSE TO FOUR COMMENT LETTERS RECEIVED FROM THE CITY OF BRAWLEY, CITY OF EL CENTRO, CITY OF HOLTVILLE, AND CITY OF IMPERIAL (CONTINUED)

Response to Comment No. 31

CEQA Guidelines (Section 15130 (a)) states "Cumulative impacts shall be discussed when they are significant." The cumulative impacts section of this EIS/EIR describes the significant cumulative effects that could be expected to result with the implementation of the proposed project. There is no evidence contained in the documents that are summarized in the cumulative impacts Section of this EIS/EIR and incorporated by reference that cumulatively significant impacts to geology/soils/minerals, cultural resources, land use, recreational resources, and visual resources would occur. Therefore, these issues are not specifically discussed in Section 4.7 of this EIS/EIR.

Response to Comment No. 32

A cumulative impact is the effect on the environment that results from the incremental impact of a proposed project when combined with the effects of other past, present, and reasonably anticipated future projects or activities. The effects of a cumulative impact can be greater than those resulting from individual action, if some or all of the effects are additive. CEQA allows two alternative methods of determining cumulative impacts (State CEQA Guidelines § 15130 (b) (1). In preparing this EIS/EIR, the first method was used, because project specific information was available for a number of past, present, and reasonably anticipated future projects. This list of projects was based on what is formally proposed or what is known about with enough certainty and detail to provide the basis for a maximum likelihood impact analysis, which is the type of analysis presented in this EIS/EIR (please see section 1.7). The second method of determining cumulative impacts was not used in this EIS/EIR because future potential projects identified in the California Desert Conservation Area Plan and the Imperial County General Plan are conceptual, with no design details are available. Also, it is uncertain that these projects will be implemented in the future. Therefore, consideration of cumulative effects based on planning documents would not have resulted in a maximum likelihood analysis, but rather a speculative worst case analysis, that would not have served the public interest.

In evaluating potential cumulative impacts for the Proposed Action, it is expected that unforeseeable future actions will be proposed at various time throughout the proposed 100-year life of the landfill. Though a

Response to Comment No. 32 (Cont'd)

prediction of future environmental law is not possible, we must assume that future projects will be subject to a process of environmental review by lead and responsible agencies, and that similar types of mitigation measures and regulatory standards will be required of those projects. Further, we must assume that at the time such projects are proposed, a cumulative impact analysis will be prepared to determine whether their effects, together with those of other past, present, and reasonably anticipated projects will result in cumulatively significant impacts. If the proposed Mesquite Regional Landfill is approved and constructed, it will be one of the existing projects that will be considered in preparing cumulative impact analyses for future projects. In that way, ongoing cumulative impact evaluations will occur to ensure that the decision makers and the public understand the cumulative effects of projects in the region.

EIS/EIR. The decision to include certain projects as part of the cumulative analysis, while excluding others has resulted in a very narrow set of future projects that is inadequate for assessment of cumulative impacts.

For long-term projects of regional significance, the CEQA Guidelines offer the "summary of growth projections" approach, which is probably more suitable in this instance. For a project like the landfill with an operational life of 100 years, long-term growth projections and policy identified in the County General Plan provide a more meaningful basis for discussing cumulative impacts than randomly selecting a limited number of individual projects. Based on the limited number of related projects discussed in the cumulative effects section of the EIS/EIR, this portion of the document is not adequate for CEQA purposes.

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Although several mitigation measures are described to address the significant traffic problem, the EIS/EIR does not discuss the fact that this cumulatively significant traffic impact could be reduced by the provision of additional recreational opportunities at other locations in the Valley. Again, an equitable distribution of the landfill host fees could provide a source of funding for recreation facilities within the population centers of the Valley that would reduce the high demands placed on the ISDRA.

34 9. Of particular concern is the landfill project's cumulatively significant impact on the air quality of Imperial Valley (page 4-212) when combined with the impacts of other future projects. The Valley is presently classified as a nonattainment area using both federal and state air quality criteria for PM 10 (airborne particulate matter less than 10 micrometers in diameter). The sources of the particulate matter are wind-blown dust generated by activities such as driving on dirt roads, off-road vehicle use, construction and agricultural practices. The Draft EIS/EIR indicates that the landfill will contribute to this significant problem.

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RESPONSE TO FOUR COMMENT LETTERS RECEIVED FROM THE CITY OF BRAWLEY, CITY OF EL CENTRO, CITY OF HOLTVILLE, AND CITY OF IMPERIAL (CONTINUED)

Response to Comment No. 33

Please see response to Comment No. 22.

Response to Comment No. 34

Please see response to Comment No. 21.

limited to the landfill property or immediately surrounding area. No other mitigation measures are specially identified to address cumulative air quality impacts, yet the host fees for the landfill provide can provide feasible mitigation. If distributed equitably between the County and cities, these fees offer a logical source of funding for road paving, dust suppression, street cleaning, tree planting for windbreaks, local transit service, indoor recreation centers, and related public services and improvements within the communities where people are most affected by the cumulative air quality impact.

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35 10. Section 5.1 Growth Inducement (page 5-1) understates the growth inducing impacts of the landfill. The need for the landfill project in Imperial County to dispose of solid waste generated in the greater Los Angles area is a primary example of a public facility that is essential to permit additional population growth and urban development. Demand for the Mesquite Regional Landfill arises from growth pressures in the Los Angeles area and the absence of property suitable for a landfill closer to the origin of the solid waste. The landfill is indeed growth inducing because its existence will allow the municipal solid waste demands associated with additional growth in Southern California, including Imperial County, to be met.

Conclusion

In conclusion, there are a number of technical problems associated with the environmental documentation for the Mesquite Regional Landfill, and the Draft EIS/EIR is inadequate until the problems described above are resolved.

Very truly yours,

Rodger L. Bennett
City Manager

RLB:ab

cc: File

RESPONSE TO FOUR COMMENT LETTERS RECEIVED FROM THE CITY OF BRAWLEY CITY OF EL CENTRO, CITY OF HOLTVILLE, AND CITY OF IMPERIAL (CONTINUED)

Response to Comment No. 35

The Draft EIS/EIR acknowledges that the proposed project will provide MSW disposal capacity for Southern California. (Draft EIS/EIR page 5-1.) The Draft EIS/EIR concluded that, by itself, this additional capacity will not induce growth. In fact, Southern California Communities will continue to grow and generate MSW, and a portion of that MSW will require landfilling, with or without the proposed project. Indeed, the CIWMB acknowledges that, even if the diversion requirements of AB 939 are fully met, additional landfill capacity will be required.

As a theoretical matter, lack of sufficient landfill capacity could be an impediment to growth. By providing additional landfill capacity, the project could remove this potential impediment to growth. It is thus possible that the project will play some role in inducing growth throughout the region it would serve. However, it must be noted that several regional landfills are currently accepting MSW volumes and several more are proposed.

It is impossible to determine whether the project would actually induce growth. Similarly, it cannot be determined when or where such growth would occur. Accordingly, the project's growth-inducing characteristics are too contingent and speculative to allow further analysis.

Finally, it should be noted that historically landfill capacity has not played a significant role in determining whether growth will occur. In light of the speculative character of project-related growth impacts, and the historically limited role of landfill capacity in inducing growth, the project's growth-inducing impacts are considered not to be significant.

OFFICE OF THE
CITY MANAGER

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CALIFORNIA

CITY HALL
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FAX (619) 352-6177

July 1, 1994

HAND DELIVERED

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243
Attention: Mr. Thomas Zale

County of Imperial
Planning and Building Department
939 Main Street
El Centro, CA 92243
Attention: Mr. Jurg Heuberger

Subject: Draft EIS/EIR for the Mesquite Regional Landfill, Imperial County, California

Gentlemen:

Thank you for the opportunity to review the Draft Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) for the proposed Mesquite Regional Landfill. Several technical problems have been noted for your consideration which suggest that the environmental document is inadequate.

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The same inconsistency exists between Table S-1(page S-34) and the transportation impact discussion and conclusion for Alternative II - Decreased Disposal Rate on page 4-174. The table describes the impact as not significant (NS) following mitigation, but page 4-174 indicates that the transportation impact associated with this alternative is cumulatively significant (CS). Table S-1 should be corrected to show that the transportation impact of Alternative II is cumulatively significant (CS).

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Environmental Consequences

28 3. Section 4.0 Environmental Consequences concludes that all Alternatives except the No Action Alternative will result in significant visual impacts that cannot be mitigated, and cumulatively significant air quality impacts and cumulatively significant traffic impacts that cannot be mitigated. When unmitigable impacts result from a project, the NEPA/CEQA lead agencies (Bureau of Land Management and County of Imperial) are responsible for ensuring that all feasible mitigation measures are identified and included as requirements before the project is approved.

Although many of the project's significant impacts can be mitigated, the people of the Imperial Valley are being asked to accept unmitigable project impacts related to visual resources, and unmitigable cumulative impacts related to transportation and air quality so that the population of the Los Angeles basin will have a suitable location for long-term disposition of their solid waste. The majority of the population of Imperial County accepting these impacts resides within incorporated communities -- the cities of El Centro, Brawley, Holtville, Calexico, Calipatria, Imperial, and Westmorland. Of the approximately 120,000 people presently residing in the Imperial Valley, 90,000 or 75 percent live within incorporated communities and rely upon city governments to provide many necessary urban services and facilities.

According to the Draft EIS/EIR (page 4-153), approximately 200 direct and indirect jobs will be created for workers who will choose to reside in Imperial County. These workers will be housed primarily within incorporated communities and city governments will be responsible for providing police protection, fire protection, recreational facilities, libraries, water and sewer service, and other municipal services to support the demand generated by workers housed in those communities.

Over the next 45 years the California Department of Finance estimates that the population of Imperial County will increase to approximately 310,000 by 2040. As the population increases over time, most of this growth will be absorbed by the existing cities. The existing and future population of these cities is being asked to accept a regional landfill that will create a mountainous landform of solid waste that will exist in perpetuity and that is predicted to have an operable life of 100 years or more. Yet, the EIS/EIR fails to recognize that such impacts might be reduced by a sharing of the host fees (or import fees) between the County of Imperial and these cities.

This letter is the same as the letter from the City of Brawley (Comment Nos. 26 through 35). Therefore, the issues raised by the City of El Centro letter are also numbered from 26 through 35. Please see pages 51 to 57 for responses to the issues raised by these letters.

While host fees are mentioned as a source of revenue on page 4-152 and 4-156 the EIS/EIR, these fees are not described as mitigation for environmental impacts. The document also mentions that a portion of the host fees may be allocated to the cities of Imperial County, but no use of these fees is described for mitigation of significant air quality, transportation and visual impacts. Commitment of the host fees as a mitigation measure is both a feasible and appropriate mechanism to protect the environment of the Imperial Valley. The EIS/EIR is inadequate unless this method of mitigation and a formula for sharing of the host fees is acknowledged and included in the document.

29 4. The Draft EIS/EIR concludes that the visual impact of the landfill is significant and cannot be fully mitigated (pages 4-127 through 4-140). While this impact is not directly experienced without being relatively close to the landfill site, this impact will exist in perpetuity and the landform created by the project will always be a reminder of the need to address the issue of solid waste disposal. This type of impact can be reduced in the future by development and application of methods to reduce the volume of material sent to landfills. The use of host fees as mitigation to support local recycling efforts and related public services is a logical approach to reduce the future need for major alterations of the Valley's natural surroundings to accommodate solid waste disposal.

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Cumulative Effects

31 6. Section 4.7 Cumulative Effects (page 4-200) dismisses five important environmental issues from the discussion of cumulative impacts -- geology/soils/minerals, cultural resources, land use, recreational resources, and visual resources -- that the EIS/EIR identifies as issues for which the project will create significant impacts. The document states that site-specific impacts will probably exist in these issue areas for each of the identified projects on the cumulative projects list, but no explanation or reasonable basis is provided in the document for not evaluating the cumulative effects for these important issue areas. CEQA Guidelines (Section 15130 (b)(3)) requires a reasonable analysis of the cumulative impacts of relevant projects. The EIS/EIR is incomplete and inadequate without a discussion of cumulative impacts for these five important environmental issue areas.

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conditions. For a project of long-term regional significance, a list of ten reasonably foreseeable, related future projects is too small for an adequate assessment of cumulative impacts.

For example, there are a number of Specific Plans (SPA) identified in the County of Imperial General Plan (1993) which are likely to develop within next 15 to 20 years which should be considered in the assessment of cumulative impacts. Projects such as the Holtville Airstrip SPA, Felicity SPA, Mesquite Lake SPA, Bravo Ranch SPA, Tamarack Canyon SPA, and Heber SPA are major development projects identified in the County General Plan, but are excluded from discussion in the EIS/EIR. Other projects, such as the Calexico East Border Crossing, are identified in the County General Plan and included in the cumulative analysis for the landfill EIS/EIR. The decision to include certain projects as part of the cumulative analysis, while excluding others has resulted in a very narrow set of future projects that is inadequate for assessment of cumulative impacts.

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Sincerely,

Abdel Salem, City Manager

2000
Mesquite
Landfill

CITY OF HOLTVILLE

121 WEST FIFTH STREET
CIVIC CENTER • HOLTVILLE, CALIFORNIA 92250-1298 • 356-2912
"THE CARROT CAPITAL OF THE WORLD"

July 1, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243
Attention: Mr. Thomas Zale

County of Imperial
Planning and Building Department
939 Main Street
El Centro, CA 92243
Attention: Mr. Jurg Heuberger

Subject: Draft EIS/EIR for the Mesquite Regional Landfill, Imperial County, California

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Sincerely,

Karen G. Stauffer
City Manager

CITY COUNCIL
PATRICIA BURK
MARK GRAN
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CITY CLERK
PATRICIA A. CADO

CITY TREASURER
STEVE SHARER

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City of Imperial
INCORPORATED 1904

CITY MANAGER
PAUL J. RICHARDS

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DIRECTOR OF
PUBLIC WORKS / PLANNING
BAYANI I. MAURICIO

FINANCE OFFICER
JANELL HODGKIN

July 7, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243
Attn: Mr. Thomas Zale

Subject: Draft EIS/EIR for the Mesquite Regional Landfill, Imperial County, California

Dear Mr. Zale:

Thank you for the opportunity to review the Draft Environmental Impact Statement / Environmental Impact Report (EIS/EIR) for the proposed Mesquite Regional Landfill. Several technical problems have been noted for your consideration which suggest that the environmental document is inadequate.

Executive Summary

26 1. Table S-1 of the EIS/EIR provides a summary of potential environmental effects and mitigation measures for the proposed landfill project. page S-33 of the table indicates that Alternative I - Smaller Landfill Footprint has transportation impacts similar to those of the Proposed Action. The table goes on to indicate that the mitigation measures applied to Alternative I would be the same as those identified for the Proposed Action, but then indicates that the impact would not be significant following mitigation (NS). The discussion and conclusion regarding the transportation impact associated with Alternative I on page 4-171 of the EIS/EIR indicate that the impact is cumulatively significant following mitigation. Table S-1 should be corrected to show that the transportation impact of Alternative I is cumulatively significant (CS).

The same inconsistency exists between Table S-1 (page S-34) and the transportation impact discussion and conclusion for Alternative II - Decreased Disposal Rate on page 4-174. The table describes the impact as not significant (NS) following mitigation, but page 4-174 indicates that the transportation impact associated with this alternative is cumulatively significant (CS). Table S-1 should be corrected to show that the transportation impact of Alternative II is cumulatively significant (CS).

27 2. The purpose of the Draft EIS/EIR for the proposed Mesquite Regional Landfill is to address short- and long-term environmental impacts of a major solid waste disposal project

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and identify mitigation measures to reduce impacts. The document identifies numerous mitigation measures aimed at reducing environmental impacts of the project in Table S-1 (Executive Summary) and in Section 4.0 Environmental Consequences, but overlooks the host fees (or import fees to be paid by the landfill owner/operator) as a source of impact mitigation. The host fees represent an essential source of project mitigation that must be shared among local governments in an equitable manner to reduce the short- and long-term impacts of the landfill on the population of the Imperial Valley.

Environmental Consequences

8 3. Section 4.0 Environmental Consequences concludes that all Alternatives except the No Action Alternative will result in significant visual impacts that cannot be mitigated, and cumulatively significant air quality impacts and cumulatively significant traffic impacts that cannot be mitigated. When unmitigable impacts result from a project, the NEPA/CEQA lead agencies (Bureau of land Management and County of Imperial) are responsible for ensuring that all feasible mitigation measures are identified and included as requirements before the project is approved.

Although many of the project's significant impacts can be mitigated, the people of the Imperial Valley are being asked to accept unmitigable project impacts related to visual resources, and unmitigable cumulative impacts related to transportation and air quality so that the population of the Los Angeles basin will have a suitable location for long-term disposition of their solid waste. The majority of the population of the Imperial County accepting these impacts resides within incorporated communities -- the cities of El Centro, Brawley, Holtville, Calexico, Calipatria, Imperial, and Westmorland. Of the approximately 120,000 people presently residing in the Imperial Valley, 90,000 or 75 percent live within incorporated communities and rely upon city governments to provide many necessary urban services and facilities.

According to the Draft EIS/EIR (page 4-153), approximately 200 direct and indirect jobs will be created for workers who will choose to reside in Imperial County. These workers will be house primarily within incorporated communities and city governments will be responsible for providing police protection, fire protection, recreational facilities, libraries, water and sewer service, and other municipal services, to support the demand generated by workers housed in those communities.

Over the next 45 years the California Department of Finance estimates that the population of Imperial County will increase to approximately 310,000 by 2040. As the population increases over time, most of this growth will be absorbed by the existing cities. The existing and future population of these cities is being asked to accept a regional landfill that will

This letter is the same as the letter from the City of Brawley (Comment Nos. 26 through 35). Therefore, the issues raised by the City of Imperial letter are also numbered from 26 through 35. Please see pages 51 to 57 for responses to the issues raised by these letters.

create a mountainous landform of solid waste that will exist in perpetuity and that is predicted to have an operable life of 100 years or more. Yet, the EIS/EIR fails to recognize that such impacts might be reduced by a sharing of the host fees (or import fees) between the County of Imperial and these cities.

While host fees are mentioned as a source of revenue on page 4-152 and 4-156 the EIS/EIR, these fees are not described as mitigation for environmental impacts. The document also mentions that a portion of the host fees may be allocated to the cities of Imperial County, but no use of these fees is described for mitigation of significant air quality, transportation and visual impacts. Commitment of the host fees as a mitigation measure is both a feasible and appropriate mechanism to protect the environment of the Imperial Valley. The EIS/EIR is inadequate unless this method of mitigation and a formula for sharing of the host fees is acknowledged and included in the document.

29 4. The Draft EIS/EIR concludes that the visual impact of the landfill is significant and cannot be fully mitigated (pages 4-127 through 4-140). While this impact is not directly experienced without being relatively close to the landfill site, this impact will exist in perpetuity and the landform created by the project will always be a reminder of the need to address the issue of solid waste disposal. This type of impact can be reduced in the future by development and application of methods to reduce the volume of material sent to landfills. The use of host fees as mitigation to support local recycling efforts and related public services is a logical approach to reduce the future need for major alterations of the Valley's natural surroundings to accommodate solid waste disposal.

30 5. The Draft EIS/EIR concludes that project impacts on socioeconomic conditions are not significant (pages 4-152 through 4-158); however, acceptance of this major landfill in Imperial County will identify the Valley as the repository for solid waste from the Los Angeles basin. Although difficult to estimate, a negative economic impact may result from the establishment of this image for the Valley. The desirability of the Valley as a destination for tourists and recreation seekers may be reduced if they identify the Valley as a major recipient of solid waste in Southern California. Mitigation for this potential impact should include the use of host fees to promote other attractive features of the Valley to offset the negative economic impacts of the landfill.

Cumulative Effects

31 6. Section 4.7 Cumulative Effects (page 4-200) dismisses five important environmental issues from the discussion of cumulative impacts -- geology/soils/minerals, cultural resources, land use, recreational resources, and visual resources -- that the EIS/EIR identifies as issues for which the project will create significant impacts. The document states that

site-specific impacts will probably exist in these issue areas for each of the identified projects on the cumulative projects list, but no explanation or reasonable basis is provided in the document for not evaluating the cumulative effects for these important issue areas. CEQA Guidelines (Section 15130 (b)(3)) requires a reasonable analysis of the cumulative impacts of relevant projects. The EIS/EIR is incomplete and inadequate without a discussion of cumulative impacts for these five important environmental issue areas.

2 7. The Mesquite Regional Landfill project is projected to have an operational life of 100 years, yet its cumulative impacts are described only in terms of its impacts plus those of ten future projects. The CEQA Guidelines (Section 1530 (b)(1)) indicate that one of two methods may be used to discuss cumulative impacts. The first is the "list" method used in the EIS/EIR and the second is the "summary of growth projections" from a planning document evaluating regional or area-wide conditions. For a project of long-term regional significance, a list of ten reasonably foreseeable, related future projects is too small for an adequate assessment of cumulative impacts.

For example, there are a number of Specific Plans (SPA) identified in the County of Imperial General Plan (1993) which are likely to develop within the next 15 to 20 years which should be considered in the assessment of cumulative impacts. Projects such as the Holtville Airstrip SPA, Felicity SPA, Mesquite Lake SPA, Bravo Ranch SPA, Tamarack Canyon SPA, and Heber SPA are major development projects identified in the County General Plan, but are excluded from discussion in the EIS/EIR. Other projects, such as the Calexico East Border Crossing, are identified in the County General Plan and included in the cumulative analysis for the landfill EIS/EIR. The decision to include certain projects as part of the cumulative analysis, while excluding others has resulted in a very narrow set of future projects that is inadequate for assessment of cumulative impacts.

For long-term projects of regional significance, the CEQA Guidelines offer the "summary of growth projections" approach, which is probably more suitable in this instance. For a project like the landfill with an operational life of 100 years, long-term growth projections and policy identified in the County General Plan provide a more meaningful basis for discussing cumulative impacts than randomly selecting a limited number of individual projects. Based on the limited number of related projects discussed in the cumulative effects section of the EIS/EIR, this portion of the document is not adequate for CEQA purposes.

3 8. Page 4-211 of the Draft EIS/EIR indicates that cumulatively significant traffic impacts along State Route 78 will result from the project and other activities in the surrounding area during the winter weekends between October 1 and May 31st each year. Presently, during these weekends, the area is highly congested (a traffic level of service of F) as people travel to and from the Imperial Sand Dune Recreation Area (ISDRA). The landfill will contribute to

this significant problem.

Although several mitigation measures are described to address the significant traffic problems, the EIS/EIR does not discuss the fact that this cumulatively significant traffic impact could be reduced by the provision of additional recreational opportunities at other locations in the Valley. Again, an equitable distribution of the landfill host fees could provide a source of funding for recreation facilities within the population centers of the Valley that would reduce the high demands placed on the ISDRA.

34 9. Of particular concern is the landfill project's cumulatively significant impact on the air quality of the Imperial Valley (page 4-212) when combined with the impacts of other future projects. The Valley is presently classified as a nonattainment area using both federal and state air quality criteria for PM10 (airborne particulate matter less than 10 micrometers in diameter). The sources of the particulate matter are wind-blown dust generated by activities such as driving on dirt roads, off-road vehicle use, construction and agricultural practices. The Draft EIS/EIR indicates that the landfill will contribute to this significant problem.

Although mitigation measures such as on-site roadway paving, dust suppression, and street cleaning are recommended, these actions are limited to the landfill property or immediately surrounding area. No other mitigation measures are specifically identified to address cumulative air quality impacts, yet the host fees for the landfill can provide feasible mitigation. If distributed equitably between the County and cities, these fees offer a logical source of funding for road paving, dust suppression, street cleaning, tree planting for windbreaks, local transit service, indoor recreation centers, and related public services and improvements within the communities where people are most affected by this cumulative air quality impact.

Growth Inducement

35 10. Section 5.1 Growth Inducement (page 5-1) understates the growth inducing impacts of the landfill. The need for the landfill projection Imperial County to dispose of solid waste generated in the greater Los Angeles area is a primary example of a public facility that is essential to permit additional population growth and urban development. Demand for the Mesquite Regional Landfill arises from growth pressures in the Los Angeles area and the absence of property suitable for a landfill closer to the origin of the solid waste. The landfill is indeed growth inducing because its existence will allow the municipal solid waste demands associated with additional growth in Southern California, including Imperial County, to be met.

Conclusion

In conclusion, there are a number of technical problems associated with the environmental documentation for the Mesquite Regional Landfill, and the Draft EIS/EIR is inadequate until the problems described above are resolved.

Sincerely,

Paul J. Richards
City Manager

PJR/jrl

cc: Mayor Mark Gran
Imperial City Council Members

2000
Mesquite
Landfill

CITY OF HOLTVILLE

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"THE CARROT CAPITAL OF THE WORLD"

June 14, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Gentlemen:

36 The City of Holtville wishes to raise one additional comment to our joint letter with Brawley, Calexico, and El Centro. We would like the Final EIR/EIS to address our belief that the Mesquite Landfill should accept solid waste and tested sludge from the cities.

Sincerely,

Karen G. Stauffer
City Manager

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CITY OF HOLTVILLE, SIGNED BY KAREN G. STAUFFER, CITY MANAGER, DATED JUNE 14, 1994.

Response to Comment No. 36

This EIS/EIR describes that the Mesquite Regional Landfill would be available to accept MSW residue from Imperial County (Draft EIS/EIR page 2-1). Sludge from municipal sewerage systems can be classified as a MSW provided it does not exceed hazardous materials and liquid content standards. Material classified as MSW could be disposed at any Class III landfill, including the proposed Mesquite Regional Landfill.

STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, Governor

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July 1, 1994

Mr. Jurg Heuberger
Planning Director
Imperial County Planning Department
939 Main Street
El Centro, California 92243-2856

Dear Mr. Heuberger:

We have reviewed the Draft Environmental Impact Statement & Environmental Impact Report (EIS/EIR), dated April 1994, for the proposed Mesquite Regional Landfill (MRL). The draft EIS/EIR report was prepared by The Butler Roach Group, Inc. under the direction of your agency and Bureau of Land Management (BLM). The proposed MRL's activities are to construct and operate a 600 million ton capacity Class III municipal solid waste landfill and associated facilities and environmental controls, a railroad unloading internodal facility, and a 4 to 5 mile railroad spur line in Imperial County, California.

The proposed landfill would be located in eastern Imperial County, primarily on and adjacent to the site of the existing Mesquite Gold Mine and Ore Processing Facility (Mesquite Mine). The proposed site includes portion of Sections 7, 8, 15, 16, 17, 18, 19, 20 and 21, and Tract 38 of Township 13 South, Range 19 East, San Bernardino Meridian. During landfill construction and operations, the applicant (Arid Operations, Inc., a wholly owned subsidiary of Gold Fields Mining Corporation) proposes to obtain groundwater from the existing Mesquite Mine Well Field located approximately three miles south of the proposed site via a water line. According to the applicant's initial calculation, the combination of Mesquite Mine and landfill water use would not exceed the existing maximum permitted well field withdrawal rate of 4,033 acre-feet per year. The Mesquite Mine well field is approved for that rate by your agency (CUP No. 684-84) based on maximum estimates of potential water demands for dust control, heap leaching and evaporation. The actual water use by the Mesquite Mine between 1987 and 1991 has varied from 700 to 1,100 acre-feet per year. During that time, drawdown at the well field has been about three feet.

The U.S. Supreme Court, in its 1964 decree, defined consumptive use of Colorado River water as "...diversions from the stream less such return flow thereto for consumptive use in the United States or in satisfaction of the Mexican water obligation." The Court in its decree further set forth that "Consumptive use from the mainstream within a state shall include all consumptive uses of water within the mainstream, including water drawn from the

mainstream by underground pumping...." The mainstream was defined by the Court to mean "the mainstream of the Colorado River downstream from Lee Ferry within the United States, including the reservoirs thereon." Under the Boulder Canyon Project Act (1928), the Secretary of the Interior is authorized to contract for storage and delivery of water from Boulder Dam (Hoover Dam). The Act provided further that no person shall have or be entitled to have the use for any purpose of the water so stored except by contract from the Secretary.

The Mesquite Regional Landfill is located on Amos-Ogilby Basin, the southeastern most portion of the Imperial Valley. The main source of ground-water recharge in this Basin is primarily the underground flow from the Colorado River or/and through leakage
37 from the All-American and Coachella Canals. There was no indication from the information supplied in the draft EIS/EIR as to whether a water right to use Colorado River water has been obtained. In the absence of such a right, the applicant may contact the U. S. Bureau of Reclamation (USBR) and BLM to seek a contract for the use of Colorado River water under exchange provisions provided for under the 1986 Lower Colorado Water Supply Act (Public Law 99-655).

If the water for this mining and landfill operation is deemed to be Colorado River water, we suggest that your agency and BLM withhold approval of the proposed operation until the applicant completes any necessary contractual arrangements for the consumptive use of Colorado River water.

If we can be of any further assistance, please don't hesitate to contact us at the above address or at (818)543-4676.

Sincerely,

Gerald R. Zimmerman
Executive Director

cc: V. LeGrand Neilson
Regional Supervisor of Water, Land, and Power
Lower Colorado Regional Office
U. S. Bureau of Reclamation
P. O. Box 61470
Boulder City, Nevada 89006-1470

RESPONSE TO COMMENT LETTER RECEIVED FROM COLORADO RIVER BOARD OF CALIFORNIA, SIGNED BY GERALD R. ZIMMERMAN, EXECUTIVE DIRECTOR, DATED JULY 1, 1994.

Response to Comment No. 37

There has been no determination that ground water at the Mesquite Mine Well Field is subject to Colorado River water rights jurisdiction. Recent studies by the United States Geological Survey (USGS Water Resources Investigation Report, 94-4005) and the United States Bureau of Reclamation also indicate that the Mesquite Well Field is not in an area that is considered in or part of the Colorado River system for purposes of water rights jurisdiction.

To account for use of Colorado River water as required by the U.S. Supreme Court decree, 1964, Arizona v. California, the U.S. Geological Survey (USGS) recently devised a method to identify wells within the river aquifer of the Colorado River between the east end of Lake Mead and Laguna Dam that yield water which will be replaced by water from the river (USGS Water Resources Investigation Report [94-4005]). The Mesquite Mine well field is not situated within the boundary of the river aquifer identified by the USGS in their report, and therefore does not constitute a consumptive use of Colorado River water. Thus, a water right or contract for use of Colorado River water is neither necessary nor proposed.

In 1984, Gold Fields was authorized to extract up to 4,033 acre feet of ground water per year at Mesquite by County of Imperial Conditional Use Permit No. 684-84. Upon conveyance of gold assets at Mesquite to the current operator of the Mesquite Mine, Santa Fe Pacific Gold Company, Gold Fields reserved rights of use of the Mesquite Mine Well Field and the mine's water distribution system for up to the authorized 4,033 acre feet per year, subject to the mine operator's requirements for water necessary for operation of the gold mine. These requirements have varied from approximately 700 to 1,100 acre feet per year. Arid's application proposes continued use of the existing Mesquite Well Field that has been in use since 1984.

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COUNTY ROAD COMMISSIONER
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DEPARTMENT OF PUBLIC WORKS

July 6, 1994

Mr. G. Ben Koski
Bureau of Land Management
1661 S. 4th Street
El Centro, Ca. 92243

ATTENTION: Mr. Thomas Zale

Ref: 2000 Mesquite Landfill (C-067.00)

Dear Mr. Koski:

This office has reviewed the Proposed Mesquite Regional Landfill Draft EIR\EIS, and offer the following comments:

I. TRANSPORTATION

38 1. It is recommended that emphasis be placed upon further analysis of employee commute data for the existing Mesquite Gold Mine, Ore Processing Facility, and the Landfill. There are three regions from which employees can be expected to travel from. The Yuma, AZ. area, the Imperial Valley area of Imperial County and the Blythe area in Riverside County. Specific data regarding the numbers of potential employees anticipated from each area, is necessary for practical recommendations and further comments from this Department and CALTRANS.

39 2. Further consideration should be given to the examination of the statistics as listed regarding total potential daily trips. This information needs to include at a minimum; employee trip data, local MSW generation, conflicts with off-road and recreational vehicles, plant (vegetable matter) materials disposal and contingency plans for truck operations, requires further research.

transit\srtp\mesquite

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS, SIGNED BY FRANK FIORENZA, ASSISTANT COUNTY ENGINEER FOR S. HARRY ORFANOS, DIRECTOR OF PUBLIC WORKS, DATED JULY 6, 1994.

Response to Comment No. 38

The Department of Public Works requested the information on the number of workers that will commute to and from the proposed landfill to allow for future planning of roadway maintenance and improvements. This information has been provided to the Department of Public Works in the form of the Mesquite Mine Ninth Annual Report of Mining Activities. This comment was not meant to address the adequacy or accuracy of the Draft EIS/EIR; therefore, no further response is required.

Response to Comment No. 39

All project-related vehicle trips that are expected to occur during normal operations are analyzed in this EIS/EIR and included on Table 4-3, including employee trips, local MSW delivery trips, agricultural material delivery trips, and other delivery trips. The unlikely impacts of emergency truck haul of MSW residue and the impact of project-related traffic on winter weekend traffic in the Imperial Sand Dunes Recreational Area (ISDRA) were considered in this EIS/EIR. The analysis determined that transportation impacts would not be significant, except along SR 78 in the ISDRA during winter weekends. Mitigation measures to address these significant impacts shall be implemented by the Applicant. Nevertheless, impacts would be cumulatively significant.

40 3. Public transit resources are not available. As a result, attention should be given to the establishment of the following mitigation measures by the Landfill Operator;

A. Park 'N Ride lots
B. Employer managed car and van pooling

41 4. Due to the increase in traffic and the potential for hazards, it appears that call boxes along affected state routes and County facilities should be installed by project proponent.

42 5. A comparison and analysis of the effect of the project on future passenger rail operations should be conducted.

43 6. Measures should be taken to insure that the potential safety hazards at rail crossings without automatic gates are eliminated by the installation of these gates prior to the commencement of the shippage of MSW via the rail line.

44 7. No public road/highway shall be blocked at any time. Public safety requires open access at all times.

45 8. Data in Chapter 2, Section 2.1.4.7 of the EIR/EIS does not correspond to data in Technical Appendix A, Section 4.4.1 Landfill Access.

46 9. On page S-10, "Alternative III - Alternative Mesquite Regional Landfill Site, paragraph 3 states that highway access would be provided via SR78 at a new intersection east of the existing intersection with Ted Kipf Road. Should this alternative be implemented, this office feels that the site access road from Highway 78, including the portion of Ted Kipf Road to be utilized as access to the site should be paved.

47 10. On page S-17, "Impacts that cannot be mitigated", it is stated that All Alternatives except the No Action alternative would result in significant visual impacts that cannot be mitigated, cumulatively significant air quality impacts that cannot be mitigated, and cumulatively significant traffic impacts that cannot be mitigated. These significant impacts that cannot be mitigated should be expanded upon specifically if their impact will be felt in all of Southern California or just in Imperial County.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

Response to Comment No. 40

The Draft EIS/EIR transportation section assumes a carpool rate of 1.5 persons per vehicle, which is based on the carpool rate at the Mesquite Mine when it was owned and operated by Gold Fields. Arid Operations would schedule employees to maximize carpooling to the extent practical, and would coordinate carpooling opportunities for its employees. Similar carpooling rates are expected by landfill employees. The expected rate of carpooling exceeds target carpooling rates in Southern California (i.e., 1.25 persons per vehicle).

Response to Comment No. 41

The analysis in this EIS/EIR is adequate. County staff will recommend the Applicant participate in a call box program as specified by the Director of Public Works as a condition of the CUP.

Response to Comment No. 42

The following information on the Inter-City rail service was obtained from Mr. Jack Regan, Riverside County Transportation Commission. This information was confirmed during conversations with Mr. Royce Green, Director, Special Projects, Southern Pacific Railroad Company. The Inter City rail service project is speculative at this time, but it is likely that some form of passenger rail will be implemented in the future. The Inter-City rail service is envisioned to run up to one train per day between Calexico and Los Angeles and two trains per day between Palm Springs and Los Angeles along the SP Main Line. The project was described in a 1991 feasibility report, but it has not been approved, and it will not be implemented in the near future. There are two major issues that are being debated currently, ridership estimates and track improvements. The issue of track improvements is not related to a lack of capacity to run three more round-trip trains. The issue is that the SP Main Line is a freight line. Passenger trains require on-time performance and in order to provide for passenger train on-time performance needs, the SP Main Line would have to be second-tracked at various locations that have not yet been identified.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

Response to Comment No. 42 (Cont'd)

The five round-trip trains per day proposed for the Mesquite Regional Landfill is within the normal variation on the SP Main Line. The need to provide double track sections for passenger service on-time performance requirements would not be increased by the proposed rail haul of MSW residue. Therefore, cumulative transportation impacts would not be significant.

Response to Comment No. 43

The analysis in this EIS/EIR is adequate. County staff may recommend improvements to non-PUC administered railroad crossings as a condition of the CUP.

Response to Comment No. 44

Comment noted. The Proposed Action would result in increased blockage of public roads or highways by approximately an average of 30 additional minutes each day as a result of project-related train traffic. This is expected to occur at intervals of only 3 minutes at any given time and rail crossing. The train traffic would also be spread so that no more than one of the additional delays would be expected during any hour. The Draft EIS/EIR determined that these additional delays would not be significant. In the event of a rail haul incident, clearing railroad crossings would be a high priority and would be expected to be accomplished quickly by the Common Carrier (Southern Pacific Railroad). Currently, there is no railroad crossing at Howell Road. Winslow Road is posted as a private railroad crossing. A project-related train would not be capable of completely blocking two private or public at-grade railroad crossings at one time.

Response to Comment No. 45

The information contained in the Draft EIS/EIR is correct. The Notice of Preparation contained in Appendix A of the EIS/EIR was released for public review on May 4, 1992. The Draft EIS/EIR contains updated information.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

Response to Comment No. 46

Comment noted. This Final EIS/EIR has been revised to add the requirement that Ted Kipf Road shall be paved from SR 78 to the Alternative site if Alternative III is implemented.

Response to Comment No. 47

The following clarification has been incorporated into this Final EIS/EIR in response to the question raised by this comment: Significant visual impacts would be limited to areas with views of the landfill from a distance of less than approximately three miles. Cumulatively significant air quality impacts would occur within approximately one mile of the proposed landfill site (please see response to Comment No. 21). Cumulatively significant traffic impacts would only occur in the vicinity of the Imperial Sand Dunes Recreation Area beginning the Friday afternoon before and ending the Monday morning after weekends from October 1st to May 31st.

48 11. On page S-33, It is stated that the Mesquite Regional Landfill project will fund the local share for each of eight at grade railroad crossing improvements. The timing for improvements is proposed to be as the MSW residue volume reaches the milestone values of 8,000; 12,000; 16,000; and 20,000 tons per day. It is questioned how were these milestone amounts were decided upon and who determined them?

49 12. On page S-34, It states that Ted Kipf Road shall be improved to handle landfill - related traffic. Again, it is suggested that Ted Kipf Road be improved by paving.

50 13. On page S-34, It states that the construction of a rail spur and loss of Vista Mine road and road A2110 will substantially reduce access south of the alternate site. As a mitigation measure it states that these two roads will be relocated. Please be advised that any relocation of public roads must be reviewed and permits granted by Public Works and any road abandonments must be approved ultimately by the Board of Supervisors.

Vista Mine Road is a County Road but we can't identify road A2110. Who controls road A2110?

II. AIR QUALITY:

51 1. On page S-36, Any fugitive dust control measures, must be reviewed and approved by APCD. In addition, any such measures involving County Roads should be approved by Public Works.

III. ENVIRONMENTAL HEALTH AND PUBLIC SAFETY:

52 1. On page S-40, It is suggested that Mesquite Regional Landfill Project explore the paving of County Roads to offset landfill related air emissions and air quality in addition to accepting agriculture waste at the site.

IV. WATER RESOURCES:

53 1. On page S-19, Please be advised that the design of diversion and drainage facilities should be for the Maximum Probable Storm rather than a 100 year, 24 hour precipitation event.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

Response to Comment No. 48

The milestones for providing railroad crossing mitigation were determined based on the number of trains that would deliver MSW residue to the proposed landfill. Each train would carry 4,000 tons of MSW residue. The Applicant would be required to provide the local funding share (10 percent of cost or $25,000, whichever is less) for each of two at-grade railroad crossing improvements once two trains per day began serving the proposed landfill. Each additional train per day would require the Applicant to provide the local funding share for two additional at-grade railroad crossing improvements for up to eight at-grade railroad crossing improvements. These mitigation measures were proposed by the Applicant and were deemed reasonable by the Bureau of Land Management and Imperial County Planning and Building Department.

Response to Comment No. 49

Comment noted. Please see response to Comment No. 46.

Response to Comment No. 50

Road A2110 is a BLM road.

Response to Comment No. 51

Comment noted.

Response to Comment No. 52

In accordance with ICAPCD Rule 207, offsets for emissions of the stationary source (flare) are required above the threshold of 137 pounds per day (lbs/day). Potential offset sources include: (1) diversion of agricultural burning; and (2) reduction of mining at the Mesquite Mine. This list is intended to be illustrative, rather than exhaustive. It demonstrates that adequate offsets exist. It is not intended to preclude obtaining offsets from other sources, such as paving County roads. Other potential offset sources will be considered by the ICAPCD in connection with review of air quality permits.

Response to Comment No. 52 (Cont'd)

In addition to the mitigation measures required by this EIS/EIR, the Applicant has agreed to provide additional emission reductions on-site and/or elsewhere in the County as part of the CUP. Although these measures are not required to reduce any environmental impacts to insignificance, they have been negotiated with the Applicant to assist the County in achieving the goals of its air quality plan. There are no further PM_{10} measures at the site, but the Applicant will implement measures to reduce PM_{10} emissions at other locations in the County. The CUP would require the proposed or alternative method negotiated with the Applicant to reduce air emissions in Imperial County.

Response to Comment No. 53

California Code of Regulations (CCR) Title 23, CCR Title 14, and Code of Federal Regulations (CFR) Section 258 (Subtitle D) each require that a Class III municipal solid waste (MSW) landfill be constructed with drainage to control the 100-year recurrence thunderstorm. The probable maximum precipitation (PMP) event is required for hazardous waste landfills (Class I), dams, hospitals, Superfund sites, or other critical structures that have the potential to be an immediate threat to human life. .

The proposed Mesquite Regional Landfill, as currently designed, could withstand the PMP event if it were to occur. Key drainage channels are designed to carry flows in excess of those that would be generated by a 10,000-year storm event. The key drainage channels are those that would carry flows around the northern perimeter of the proposed landfill (see figures 2-15 and 2-16). These channels are important because they would be required to carry flows originating in the Chocolate Mountains, north of the proposed site and the neighboring Mesquite Mine. Note that nearly all of the storm water from the northern areas would be collected in the channel extending west along the north site perimeter and then south eventually to drainage structures across SR 78. In the event that flows greatly in excess of a 10,000-year storm event occur, they would flow straight out into the desert west of the proposed site (without turning south) without causing any substantial adverse impact on the proposed landfill or the surrounding environment.

54 2. On page S-20, The 200 foot distance of the landfill to any holocene faults should be substantially increased, considering the recent failures of liner systems in the Northridge earthquake in the Los Angeles area.

55 3. On page S-20, It is proposed to accept agricultural plant material to provide offset for landfill related air emission. It is this Departments suggestion to have the Mesquite Regional Landfill Project pave County Roads to provide these offsets in a more direct manner that would better benefit the public as well as reduce particulate matter.

56 4. On page S-20, It is stated that only municipal solid waste previously sorted at a transfer station (or material recovery facility) shall be accepted. Does this include the County's Waste? Would the County have to set up a material recovery facility before being allowed to dispose of County Waste? It is suggested that mitigation for this be done by the Mesquite Regional Landfill providing the County a material recovery facility.

57 5. On page S-21, It is mentioned that runoff containment and treatment for the first 0.1 inches of rainfall on the intermodal facility shall be provided during any storm event. What happens to the remainder of rainfall on the intermodal facility? Does the remainder run into the desert? Or is this for NPDES purposes?

58 6. On page 2-26, "Surface Water Drainage Control" the third paragraph mentions that the intermodal facility would include drainage basins designed to collect the first 0.1 inches of runoff from any rain event. The site should be required to retain all storm water from the maximum probable storm, not just 0.1 inches.

HYDROGEOLOGY TECHNICAL REPORT:

59 1. In the leachate collection and removal system (LCRS) calculation, the following items should be addressed:

A. On page H.2-17, it is questioned from what source the 100 year rainfall data was obtained? A search was made elsewhere within the EIS/EIR document and this information could not be found.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

Response to Comment No. 54

The reference to the 200-foot distance from any Holocene fault in Table S-1 was intended to restate the state regulations for this issue. This was somewhat misleading, however, because the actual distance between the proposed Mesquite Regional Landfill and the nearest Holocene fault is approximately nine miles. See discussion in Section 3.1.1.3 of the Draft EIS/EIR.

Response to Comment No. 55

Please see response to Comment No. 52.

Response to Comment No. 56

Any MSW that Imperial County decides to send to the proposed Mesquite Regional Landfill would have to undergo separation and hazardous waste screening at a transfer station/MRF. The County, in association with other private and public parties, would work in establishing a transfer station/MRF if the County decides to send MSW to the proposed landfill. Appropriate environmental review would be conducted at that time.

Response to Comment No. 57

As indicated in the Draft EIS/EIR, surface drainage from paved portions of the intermodal area would be controlled to drain through an oil/water separator that would be designed to collect the first one-tenth of an inch of runoff. For the proposed intermodal configuration shown in Draft EIS/EIR Figure 2-8, the first one-tenth of an inch of runoff would constitute about 50,000 gallons. This initial flow would be expected to contain the oily runoff due to concentrated rail and truck traffic in that area. The remainder of rainfall on the paved intermodal surface would be allowed to flow off into the desert and would not have any adverse impact on the environment. The intermodal initial runoff retention basin is shown in the lower part of Figure 2-8 in the Draft EIS/EIR.

Response to Comment No. 58

Please see responses to Comments 53 and 57. Retaining all stormwater would require very large impoundment facilities, which would have to be covered to preclude attraction of ravens and other wildlife. Also, downgradient vegetation that currently relies on stormwater runoff from the proposed site would be adversely impacted if all stormwater was impounded. The Draft EIS/EIR analysis provides no indication that runoff from the site, with the proposed drainage control design, would have any adverse impact on the environment. Therefore, the recommended mitigation measure would provide no additional benefit to the environment while substantially increasing project cost and adversely affecting the downstream environment.

Response to Comment No. 59

The source of the 100-year rainfall data was inadvertently left out of Appendix H to Appendix B of the Draft EIS/EIR. The source is the California Department of Water Resources Bulletin 195, October 1976. This Final EIS/EIR has been modified to include this information.

60 B. On page H.2-27, it is also questioned from what source the 100 year, 24 hour precipitation was obtained?

61 C. For the calculations, the maximum probable storm should be used rather than 100 year frequency storm.

It is requested that these issues be studied in more intensive detail, and, requested information be provided to make realistic recommendations and further comments.

Should you have any questions, please call do not hesitate to contact this office.

Sincerely yours,

S. HARRY ORFANOS
Director of Public Works

BY: Frank Fiorenza
Frank Fiorenza
Assistant County Engineer

ga

cc: Jurg Heuberger, Planning Dept.

transit\srtp\imesquite

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS (CONTINUED)

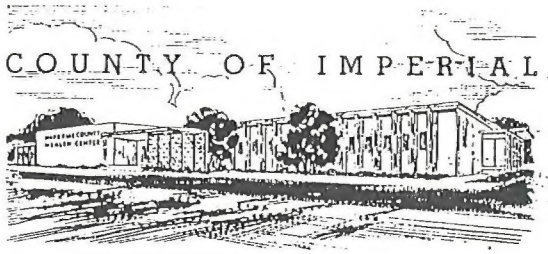
Response to Comment No. 60

Please see response to Comment No. 59.

Response to Comment No. 61

Please see response to Comment No. 53.

COUNTY OF IMPERIAL



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(619) 339-4205
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DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL HEALTH

July 6, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 922243

Attn: Thomas Zale

Subject: Comments on Draft EIS/EIR - Mesquite Regional Landfill

Dear Mr. Zale,

This Agency has reviewed the EIS/EIR for the proposed Mesquite Regional Landfill and submit the following comments.

62 1. Exploratory drill holes within and immediately adjacent to the landfill footprint were addressed as having been developed, but EIS/EIR appeared to be silent as to whether or not the holes were adequately destroyed. This should be addressed.

63 2. The EIS/EIR should be specifically clear that the water source (the well field) is legally secured by the landfill for its lifetime and that when the mine terminates operation or sells its mine assets that the well field and its water source is not separable from the landfill.

64 3. Although approximate number of acres are stated for the landfill footprint, the approximate figure should be the same in each case.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF IMPERIAL, DEPARTMENT OF HEALTH SERVICES, DIVISION OF ENVIRONMENTAL HEALTH, SIGNED BY GERALD QUICK, REHS III, LOCAL ENFORCEMENT AGENCY-PERMITTING, FOR THOMAS L. WOLF, DIRECTOR, DIVISION OF ENVIRONMENTAL HEALTH, DATED JULY 6, 1994.

Response to Comment No. 62

A borehole sealing plan has been developed and presented to the RWQCB. The boreholes located within the proposed landfill footprint have been identified and have been monumented for future sealing in accordance with the plan. Generally, sealing would be performed using a combination of grout and bentonite.

Response to Comment No. 63

In June 1993, Gold Fields transferred its interest in the gold assets at the Mesquite Mine to Santa Fe Pacific Gold (SFPG) and retained those real and personal property interests necessary for the development and operation of the Mesquite Regional Landfill. Although Gold Fields transferred ownership of the Mesquite Well Field to the gold mine operator, that transfer was subject to Gold Fields' reserved right to tap into and use the wells for landfill purposes. Furthermore, at mine closure, expected to occur within the next 5 to 15 years, Gold Fields has the option to repurchase all or portions of the interests conveyed to SFPG, including but not limited to the Mesquite Well Field facility.

Response to Comment No. 64

Comment noted. This Final EIS/EIR has been revised to consistently present the project area as approximately 4,250 acres, landfill footprint as approximately 2,290 acres, and federally-owned land to be exchanged as approximately 1,750 acres.

Sincerely,

Thomas L. Wolf, Director
Division of Environmental Health

by: Gerald Quick, REHS III
Local Enforcement Agency - Permitting

cc: Jurg Heuberger, Director, Imperial Co. Planning/Building

GQ/tb

COUNTY OF ORANGE

INTEGRATED WASTE MANAGEMENT DEPARTMENT
320 N. Flower Street, Suite 400
Santa Ana, California 92703
(714) 834-4000
FAX (714) 834-4001

MURRY L. CABLE
Director

VICKI L. WILSON
Assistant Director

SENT VIA FAX TRANSMITTAL
ATTN: Mr. Thomas Zale, AICP
FAX# (619) 353-7461

July 6, 1994

Mr. G. Ben Koski, Area Manager
El Centro Resource Area
United States Department of the Interior
Bureau of Land Management
1661 South 4th Street
El Centro, California 92243-4561

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT (EIS/EIR) - PROPOSED MESQUITE REGIONAL LANDFILL (SCH: 92051024)

Dear Mr. Koski:

The County of Orange Integrated Waste Management Department (IWMD) has reviewed the Draft EIS/EIR for the proposed Mesquite Regional Landfill and has determined that the proposed project will not cause a significant impact to the County of Orange wastestream or waste disposal system. However, the information contained in the Draft EIS/EIR regarding the County of Orange's current and future municipal solid waste (MSW) disposal data is inaccurate and should be revised to reflect current IWMD disposal and capacity information for Fiscal Year 1993-94.

65 IWMD understands that written comments on the Draft EIS/EIR are accepted through Tuesday, July 6, 1994. Yet, the information contained in *Table 1-1: Existing Population, MSW Disposal Rates, and Permitted Capacity, Southern California Proposed Mesquite Regional Landfill (page 1-4)* and also under *Chapter 1.0, Introduction, Orange County (page 1-5)* should be revised prior to preparation of a Final EIS/EIR for the proposed project. IWMD will submit Fiscal Year 1993-94 figures for inclusion in the Final EIS/EIR when they become available on Friday, July 15, 1994.

1090MR
7/6/94

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ORANGE COUNTY RECYCLES

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF ORANGE, INTEGRATED WASTE MANAGEMENT DEPARTMENT, SIGNED BY SUZANNE MCCLANAHAN, MANAGER, IWMD/PLANNING AND COMPLIANCE, DATED JULY 6, 1994.

Response to Comment No. 65

Comment noted. The revised information mentioned in this letter has been received and incorporated into this Final EIS/EIR.

Should you have any questions regarding this matter, please contact Linda Hagthrop at (714) 834-4116 or R. Matt Rodriguez at (714) 834-4105.

Sincerely,

Suzanne McClanahan

Suzanne McClanahan, Manager
IWMD/Planning and Compliance

RMR:

cc: Vicki Wilson, IWMD
Charlie Niederman, IWMD
Kevin Kondru, IWMD
Sonia Nasser, IWMD
Linda Hagthrop, IWMD
R. Matt Rodriguez, IWMD
IWMD Central File

1090MR
7/6/94

County Administrative Office

Larry Parrish
Chief Administrative Officer

May 25, 1994

Bureau of Land Management
1661 S. 4th Street
El Centro, CA 92243

Attention: Thomas Zale

Imperial County Planning and
Building Department
939 Main Street
El Centro, CA 92243

Attention: Jurg Heuberger

Subject: Mesquite Regional Landfill EIS/EIR

The County of Riverside appreciates the opportunity to review and comment on the Environmental Impact Statement & Environmental Impact Report for the Proposed Mesquite Regional Landfill (EIS/EIR) project. The County has the following comments, regarding the proposed project.

The County of Riverside has approved a regional landfill (Eagle Mountain Mine Landfill, Specific Plan No. 252) which was conditioned appropriately to protect public health and to provide appropriate public safety. Therefore, Riverside vehemently suggests that the Mesquite Regional Landfill be conditioned to meet the same or equal standards as those placed on the Eagle Mountain Mine Landfill, located in the eastern portion of the County of Riverside. Numerous County of Riverside residents testified at the Eagle Mountain Mine Landfill public hearings regarding potential environmental damage due to spillage, air pollution, noise pollution, and traffic impacts. Hence, the County of Riverside is very concerned that the Mesquite project be conditioned to fully mitigate any impacts upon its lands and/or residents.

66 The County of Imperial must create a **Environmental Hazards Fund** as part of the mitigation of the concerns stated above, and as assurance to the County of Riverside that **emergency** situations will be dealt with expeditiously at no cost to the County of Riverside.

The potential for transport mishaps within the County of Riverside is much greater than for the County of Imperial, since trains or trucks will spend more time traversing the County of Riverside. The longest reach for the proposed train route (Southern Pacific) is within the County of Riverside; approximately

67 85 miles plus. Specifically the County's residents and its Board of Supervisors are concerned about the potential for accidents/derailments that damage property, sensitive biological ecosystems, and cause unreasonable traffic delays. These impacts, as well as the increased air and noise pollution must be fully

68 mitigated. As aforementioned, the costs and liability associated with such incidents must be borne by the County of Imperial.

69 It is imperative that a comprehensive emergency response plan, financial assurances and other conditions and mitigation applied to the Eagle Mountain Landfill should apply to all regional landfill projects that involve rail and truck haul through the County of Riverside.

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE, SIGNED BY LARRY PARRISH, CHIEF ADMINISTRATIVE OFFICER, DATED MAY 25, 1994.

Response to Comment No. 66

The Draft EIS/EIR concludes that the proposed project would not have a significant impact on Riverside County with respect to air quality, traffic, and noise. (See also response to comment No. 21). Because the proposed project would not have a significant effect on air quality, noise, traffic, or environmental hazards in Riverside County, there is no need to incorporate further mitigation measures to address these impacts. There is no need to establish an Environmental Hazards Fund earmarked for Riverside County because the common carrier would be responsible for addressing any emergencies that arise.

Response to Comment No. 67

Mitigation measures to reduce potentially significant impacts from an accident involving a MSW residue train to insignificance are described in Sections 4.1.6.3 and 4.1.12.3 of this EIS/EIR. Noise impacts would not be significant. Please see response to Comment No. 66.

Response to Comment No. 68

Please see response to Comment No. 66.

Response to Comment No. 69

The requested comprehensive emergency response plan and financial assurances are not necessary for the proposed Mesquite Regional Landfill because the MSW residue delivered to the proposed landfill would be hauled under contract with a common carrier, that is financially responsible for railroad activities. This differs from the proposed Eagle Mountain Landfill, which would haul MSW by common carrier as well, except that the last 50 miles of Eagle Mountain's proposed rail haul would occur on a private rail line operated for landfill purposes by the owner of the proposed Eagle Mountain Landfill. Much of the Eagle Mountain project rail line would pass through critical habitat for the threatened desert tortoise and adjacent to habitat for the endangered desert pupfish, razorback sucker, and Yuma clapper rail as well as the California threatened species - California black rail. In contrast, the SP Main Line,

Response to Comment No. 69 (Cont'd)

which would be used by trains hauling MSW residue for all but the last four to five miles, passes near Category III desert tortoise habitat. It crosses over Salt Creek, potential habitat for the desert pupfish, razorback sucker, and Yuma clapper rail, and California black rail at only one location (i.e., it does not run adjacent to Salt Creek). Impacts and required mitigation associated with the construction and operation of the proposed four- to five-mile rail spur that would connect the SP Main Line with the proposed intermodal are fully described in Chapter 4 of this EIS/EIR. Please see response to Comment No. 66.

70 On Page 4-149 of the EIS/EIR, Table 4-26 shows a Spillage Contingency Plan which includes a line item for notifying Riverside County; however, the statements for mitigation fail to appropriately address the County of Riverside. It appears that appropriate mitigation was omitted for spills in neighboring jurisdictions or jurisdictions traversed during MSW residue transport (reference EIS/EIR pages 2-103, 3-46, 3-66, 3-70, 3-155, 4-31, 4-38, 4-48, 4-57, 4-166, and 4-174).

71 The EIS/EIR appears extremely superficial in its analysis and presentation of air quailty and noise issues, primarily regarding off-site rail/truck transport generated air/noise emissions. Air quality/noise should be addressed in detail and specific conclusions reached; listing the issues including emissions from trucks and trains during transport. The current document suggests that all of the air quality/noise issues are mitigated to a non-significant level or, at worst, are cumulatively significant. However, the statement, for air quality, relates only to fugitive dust and PM10 generated at the landfill site. Table S-1 Summary of Potential Environmental effects should have addressed the off-site transportation air
72 quality impacts. Mitigation for noise emitted within the County of Riverside should have also been addressed specifically.

73 It appears that "Eagle Mountain" and "Mesquite" are both of similar magnitude; both capable of accepting up to 20,000 tons of MSW residue per day, and both will employ trains/trucks to deliver product, therefore, the conclusions reached in the EIS/EIR should be very similar to those stated in the Eagle Mountain Mine EIS/EIR.

If you desire additional information, contact John Johnson at (909) 275-1114.

Respectfully yours,

LARRY PARRISH
Chief Administrative Officer

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE (CONTINUED)

Response to Comment No. 70

Draft EIS/EIR, page 2-103 described alternatives that were dropped from further consideration, therefore no mitigation would be required. Draft EIS/EIR, pages 3-46, 3-66, 3-70, and 3-155 described existing conditions and mitigation measures are not described in the existing conditions section. Draft EIS/EIR page 4-31 specifically identified that mitigation of impacts to species in the Salt Creek ACEC, which is in southern Riverside County, are addressed in EIS/EIR Section 4.1.3.3. Draft EIS/EIR page 4-38 specifically described the mitigation requirements for spills in sensitive species habitat, including the Salt Creek ACEC in southern Riverside County. Draft EIS/EIR page 4-48 described assumptions and assessment guidelines used to prepare the sections of the EIS/EIR. Impacts to rural Coachella Valley communities in Riverside County are specifically identified as an issue raised during the public scoping process. The transportation mitigation measures that begin on Page 4-57 of the Draft EIS/EIR are not specific to any one jurisdiction. The funding of the local share of two grade separations and eight at-grade railroad crossing improvements would occur at crossing selected by the Public Utilities Commission. These improvements could be anywhere along the rail haul route. The Spill contingency plan would be applicable to a MSW residue spill in any jurisdiction along the rail haul route, and the Applicant would work with all jurisdictions, not just those in Imperial County, regarding the emergency truck route that is identified in the Draft EIS/EIR. Table 4-26 of the Draft EIS/EIR included notifying the Riverside County Department of Health Services. Draft EIS/EIR page 4-166 addressed the impacts of the No Action Alternative. By definition, there would be no project-related impacts to neighboring jurisdictions from the No Action Alternative. Draft EIS/EIR page 4-174 addressed the Decreased Disposal Rate Alternative. All of the mitigation measures described for the Proposed Action would also be required for this alternative. These mitigation measures would be required for spills in Imperial County and neighboring jurisdictions.

Response to Comment No. 71

Trucking in Riverside County is not proposed for the Mesquite Regional Landfill project. There would be no truck-related impacts. Air quality impacts from rail haul in the South Coast Air Basin, including portions of Riverside County, were shown on Table 4-14 of the Draft EIS/EIR. Additionally, Table 4-15 of the Draft EIS/EIR specifically described rail haul-related air emissions in the Coachella Valley and Riverside County. Draft EIS/EIR Table 4-16 compared Project and No Action Alternative air emissions within the SOCAB, including those portions of Riverside County and Coachella Valley (for additional information, please see response to Comment No. 66). These tables have been changed in this Final EIS/EIR to incorporate updated information that was not available for inclusion with the Draft EIS/EIR.

Response to Comment No. 72

The noise impact analysis presented in this EIS/EIR considers all counties along the SP Main Line. Impacts from railroad operations along the SP Main Line would not be significant.

Response to Comment No. 73

This EIS/EIR describes the significant environmental effects of the proposed Mesquite Regional Landfill Project. This EIS/EIR comes to different conclusions than the BLM/Riverside County Eagle Mountain EIS/EIR because of differences in the project areas and the projects themselves.

County Administrative Office

Larry Parrish
Chief Administrative Officer

June 29, 1994

Imperial County Planning and Building Department
939 Main Street
El Centro, CA 92243

Attention: Jurg Heuberger, Director

Subject: Mesquite Regional Landfill EIS/EIR

On May 24, 1994, the County of Riverside submitted comments on the project referred to above. This letter adds to, expands upon those comments, and suggests mitigation measures base on technical information from various County departments.

Transportation:

74 1. The rail-haul route analysis describes Southern Pacific's railroad operations including its track capacity and volume. Table 3-8 At-Grade Railroad Crossings on Proposed Rail-Haul Route identifies the crossings in the counties which will be traversed by rail. It is recommended that the Riverside County Transportation Commission (RCTC) and the Southern Pacific Railroad be contacted to determine any conflicts with the proposed Inter-City rail service from the City of Riverside to the City of Palm Springs on the Southern Pacific Line. It is also recommended that the County of Riverside be consulted in order to assess potential impacts upon its arterial network.

75 2. Indicated on page 4-51 is the truck delivery route for temporary trucking of MSW, resulting from a major failure o the Southern Pacific rail system. Consequently, the analysis of the traffic impacts associated with this contingency trucking activity is performed for outside of the County of Riverside. In the discussion of mitigation measures, the Draft EIS/EIR recommends: "Prior to project start-up, the Applicant shall work with the appropriate state and local agencies to define a truck route that avoids population centers and minimizes potential environmental effects related to a temporary interruption of rail service that requires truck transport of MSW residue." The mitigation measure appears to be inconsistent with the assumption for the truck delivery route. Clarification is necessary. If hauling contracts were secured for MRFs in the North Los Angeles area, it would be more practical and economical to haul the waste through Riverside County. If rail service is temporarily lost, what assurances can the landfill proponent give that waste haulers will strictly adhere to the southern route?

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE, SIGNED BY LARRY PARRISH, CHIEF ADMINISTRATIVE OFFICER, DATED JUNE 29, 1994.

Response to Comment No. 74

Please see response to Comment No. 42. As stated in Section 3.1.6.3 of this EIS/EIR, at-grade railroad crossings are monitored by local communities and the PUC, with input from SP, to evaluate if improvements are needed. The project-related train trips could accelerate the need for at-grade railroad crossing improvements along the SP Main Line at crossings administered by the PUC. To mitigate this impact, the CUP requires the Applicant to contribute a specific portion of the funding for two grade separations and eight at-grade crossing improvements according to specific milestones.

Response to Comment No. 75

The truck route that currently avoids rural roads to the greatest extent possible is the emergency truck route identified in this EIS/EIR. The use of the emergency truck route by haulers would be enforced by the County's CUP, which would require that the emergency truck route be included as a contractual condition for haulers contracted to haul MSW residue to the proposed Mesquite Regional Landfill in the event of Emergency Truck Haul. In the future, it is likely that existing roads will be improved and new roads will be built. Therefore, it is possible that a better truck route would exist in the future. A different truck route could be utilized in the future after consulting with the local and state jurisdictions through which the emergency truck route would pass. If a different route is identified in the future, emergency trucking impacts still would not be significant because of the remote likelihood and temporary nature of the emergency trucking.

76 3. The project-related train operations should be scheduled, as much as practical, during evening, nighttime, and early morning hours to avoid impact on peak-hour vehicle traffic at-grade rail crossings along the rail haul route.

77 4. All waste MSW hauling trucks using Riverside County roadways, should there be any, during the transport of waste to the proposed landfill should cover their loads at all times during the trip.

Air Quality:

78 1. A qualified consulting air quality specialist, approved by imperial County, should be retained by the landfill operator to supervise all aspects of the air quality mitigation monitoring and reporting program.

79 2. This qualified air quality specialist should periodically file a report on the status of all air quality mitigation activity with Imperial County and the Imperial County Air Pollution Control District (ICAPCD).

80 3. All long distance waste hauling trucks should be low emission vehicles as defined in the California Air Resource Board (CARB) regulations.

81 4. These trucks should be required to use diesel fuel which complies with all applicable CARB regulations for on-highway diesel motor vehicle fuel.

82 5. These trucks should be subject to random checks for excessive smoke.

83 6. Diesel locomotives on the Southern Pacific railway for hauling waste to the proposed landfill should be fuel with diesel fuel which meets the appropriate requirements of CARB.

84 7. These diesel locomotives shall comply with all state and federal emissions control requirements.

85 8. Feasibility studies to evaluate the potential for use of selective catalytic reduction (SCR) or natural gas fuels to reduce locomotive NO emissions to approximately 2 grams per brakehorsepower-hour at a maximum rated load should be conducted within a reasonable time frame after the proposed landfill begins operations.

If the results of the feasibility studies are positive, the operator of the proposed landfill should be required to implement a limited low emission locomotive demonstration program for an appropriate length of time to further study the efficiency of the low emission locomotives (either fueled with SCR or natural gas). The results of the demonstration program should form the basis for whether or not the use of a particular kind of low emission locomotives for waste hauling to the proposed landfill should be required.

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE (CONTINUED)

Response to Comment No. 76

Comment noted. The Applicant would contract with a common carrier, SP, and therefore would not be responsible for scheduling train trips. SP takes many factors into account when scheduling, including avoiding peak-hour traffic at railroad crossings.

Response to Comment No. 77

Comment noted. All project-related trucks would be required to comply with all applicable regulations.

Response to Comment No. 78

Qualified personnel would perform all aspects of construction, operation, and monitoring at the proposed Mesquite Regional Landfill.

Response to Comment No. 79

Air quality reports would be filed according to Imperial County APCD permit requirements.

Response to Comment No. 80

The Proposed Mesquite Regional Landfill Project does not include long-distance MSW residue hauling by truck. Air quality impacts by emergency truck haul would not be significant because emergency truck haul is very unlikely to occur and if it did occur, it would occur only for a short time. Therefore, it is not necessary to include the requested mitigation measure.

Response to Comment No. 81

Please see response to comment No 80. All project-related vehicles would be required to use fuel approved for use in the State of California by CARB. This mitigation measure has been added to this Final EIS/EIR.

Response to Comment No. 82

Please see response to Comment No. 80. All vehicles registered to travel on public roads in California are subject to random checks for excessive smoke.

Response to Comment No. 83

SP diesel locomotives would be required to comply with all applicable regulations.

Response to Comment No. 84

Please see response to Comment No. 83.

Response to Comment No. 85

These types of feasibility studies are not required for the proposed Mesquite Regional Landfill Project because project-related MSW residue would be hauled by a common carrier as opposed to the private rail line that would be operated by the proposed Eagle Mountain Landfill. Common carriers participate in these types of studies at the national level.

86 9. Energy recovery from landfill gas emitted from the proposed landfill should be actively pursued.

87 10. Feasibility studies should be conducted to evaluate the potential for the use of the energy recovered from the landfill gas generated in the proposed landfill in the electrification of the rail-haul line, in order to reduce air contaminant emissions from diesel locomotives used by the project. If the electrification of the rail line is a feasible use of the recovered energy, such use should be given a first priority.

Biology:

Recommend additional mitigation measures for impacts on the desert pupfish and razorback sucker:

88 1. In the event of an accident near pupfish or razorback sucker habitat along the rail haul route, a specialized biologist should be included as a response and clean-up team member, and USFWS, BLM, and CDFG should be notified immediately.

89 2. Measures to restore the pupfish or razorback sucker habitat in the event of a rail accident should be incorporated as part of the response.

90 3. If restocking of the pupfish or razorback sucker is required in the aftermath of an accident, the nearest suitable genetic strain of pupfish or razorback sucker should be the source of the transplantation. Potential restocking sources should be reported to the USFWS at 5 year intervals.

91 4. All emergency procedures to protect and restore habitat of these fish species that are affected in an accident should be proposed to and approved by USFWS and CDFG prior to implementation.

92 5. Reports of all emergency procedure results should be submitted to the USFWS and CDFG upon completion.

Recommended additional mitigation measures for impacts on the desert tortoise:

93 6. All weed control within the rail spur and landfill access road rights-of-way should be done by hand or other methods that do not involve the use of herbicides.

94 7. Culverts should be installed under the landfill access road at a minimum of one per mile of road to facilitate crossings by the tortoise.

95 8. The FCR should monitor the access road and rail spur line for tortoise activity throughout the life of the project.

96 9. A speed limit of 25 miles per hour should be set and enforced along the landfill access road until tortoise barriers are in place.

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE (CONTINUED)

Response to Comment No. 86

Comment noted.

Response to Comment No. 87

The SP Main Line is part of a nationwide railroad network that is not controlled or owned by the Applicant. Therefore, it is not feasible for the Applicant to electrify the SP Main Line. Because train-related air emissions would not result in significant impacts, mitigation is not required. Please see response to Comment No. 85.

Response to Comment No. 88

SP maintains emergency response teams that include biologists. In addition, the Applicant would retain the services of a biologist that could be called to the site of an accident in the event SP is unable to provide a biologist. Emergency response procedures would include the notification of all appropriate agencies in the event of a spill .

Response to Comment No. 89

SP's procedures for restoring sensitive habitat are consistent with current practices and applicable regulations.

Response to Comment No. 90

Unlike the proposed Eagle Mountain Landfill project, common carrier trains would be contracted to haul the MSW residue. Mitigation of any impacts from a common carrier spill would be the responsibility of the common carrier. Please see response to Comment No 89.

Response to Comment No. 91

Please see responses to Comment Nos. 89 and 90.

Response to Comment No. 92

Comment noted.

Response to Comment No. 93

Weed control restrictions are described on page 4-31 of the Draft EIS/EIR.

Response to Comment No. 94

There is no need to install culverts under the landfill access road because the portion of the landfill access road, that is outside of the fenced project area, would be less than one-mile long. At least three culverts would be installed under the proposed four- to five-mile railroad spur. This along with the gravel beaches to be installed between and outside of the tracks would facilitate tortoise crossings.

Response to Comment No. 95

Because the proposed Mesquite Regional Landfill access road and rail spur would not impact Critical Desert Tortoise habitat areas, the requested mitigation measures are not warranted. Based on the experience at the Mesquite Mine, there is no need for the FCR to monitor the landfill access road. Monitoring of the rail spur would occur for at least two years; however, further monitoring would continue as long as warranted and as determined by BLM. If necessary, a long-term mitigation plan may be developed (Draft EIS/EIR page 4-38).

Response to Comment No. 96

Because the proposed Mesquite Regional Landfill access road would not impact Critical Desert Tortoise habitat areas and because impacts to tortoises would be less than significant, the requested mitigation measure is not warranted.

97 10. In addition to Desert Tortoise signage, it is recommended that a public awareness brochure be prepared and distributed to public entering the landfill.

Water Quality:

98 1. Given the importance of the Amos Ogilby Basin, the project proponent should conduct a more intense groundwater investigation to better determine the hydrogeological dynamics between the proposed site and this valuable groundwater formation.

The EIS/EIR states that the predominant lithographic feature underlying the proposed site is the sub-basin designated as the Bear Canyon Conglomerate which is comprised of low-permeability soils. However, the document also indicates that the Amos Ogilby groundwater basin lies within a mile of the proposed site. The Amos Ogilby Basin consists of deep alluvium (to 5000 ft) and contains at least 100,000,000 acre-feet of usable groundwater, a very significant State water resource.

The engineering design for the base liner at the proposed landfill calls for a triple composite configuration, to include a one (1) foot layer of 10^{-6} cm/sec compacted clay sandwiched between a 60 mil. HDPE FML on the top, and a 30 mil. VLDPE FML on the bottom. As the proponents point out, this design exceeds the current 40 CFR, Subtitle D base liner requirement for new landfills. However, significant testing of the liner for leakage and of the atmospheric contribution to the development of leach-ate should be conducted, and the findings compared to the theory all liners will leak eventually.

Thank you for the opportunity to review the Draft EIS/EIR. the County of Riverside would appreciate a copy of the Final EIS/EIR and Conditions of Approval of the project and notification of all future public hearings.

If you desire additional information, contact John Johnson at (909) 275-1114.

Sincerely,

Larry Parrish
Chief Administrative Officer

cc: ✓Bureau of Land Management
1661 South Fourth Street
El Centro, CA 92243

Riverside County Board of Supervisors

Robert T. Andersen Administrative Center
4080 Lemon Street • 12th Floor • Riverside, California 92501 • (909) 275-1100 • FAX (909) 275-1105

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF RIVERSIDE (CONTINUED)

Response to Comment No. 97

Gold Fields has been distributing a desert tortoise public awareness brochure since construction and operation of the Mesquite Mine in the mid 1980s. This practice would continue with the proposed Mesquite Regional Landfill.

Response to Comment No. 98

Extensive studies have been performed of site hydrogeology and the relationship to the subbasin where the project site is located to the main Amos/Ogilby Basin. This information is contained in Appendix B to the Draft EIS/EIR, Hydrogeologic Investigations and is discussed extensively in Section 3.1.2 of the Draft EIS/EIR. The combination of studies performed for the Mesquite Mine and studies performed for the proposed landfill makes this one of the most closely studied areas in the southern California desert.

Testing of the liner for leakage by an independent third party would occur during construction. Draft EIS/EIR Section 4.1.2 considers the potential atmospheric contribution to the development of leachate along with a number of other factors affecting leachate generation and found that with the implementation of the required mitigation measures, impacts would not be significant.

2000
Mesquite
Landfill

County of San Diego

DEPARTMENT OF PUBLIC WORKS

5555 OVERLAND AVE, SAN DIEGO, CALIFORNIA 92123-1295

(619) 694-2212
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LOCATION CODE S50

COUNTY ENGINEER
COUNTY AIRPORTS
COUNTY ROAD COMMISSIONER
TRANSPORTATION OPERATIONS
COUNTY SURVEYOR
FLOOD CONTROL
LIQUID WASTE
SOLID WASTE

May 12, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243-4561

Attention: Thomas Zale

Dear Mr. Zale:

COMMENTS ON MESQUITE REGIONAL LANDFILL EIR/EIS

The County of San Diego, Department of Public Works, has reviewed the Draft Environmental Impact Report/Environmental Impact Statement(DEIR/DEIS) for the proposed Mesquite Regional Landfill and has the following comments:

Page 1-5 San Diego County

99 The statement that the County of San Diego has approximately 10 years of remaining landfill capacity is incorrect. The County system is working toward a regional governing body and it is unknown whether all current participants will remain in the system, so, at this time, there is no definitive date when capacity would be reached. Consequently, the Department of Public Works believes this statement should be removed.

Page 1-4 Table 1.1

100 The figure showing County of San Diego annual disposal at 4.0 million tons is incorrect. The County of San Diego's actual disposal rate was approximately 1.7 million tons in FY 1992/93 and is expected to be lower for FY 1993/94. It is the Department of Public Works belief that the DEIR/DEIS has combined County of San Diego and City of San Diego disposal figures. These two entities operate separate trash disposal systems and that separation should be reflected in this table as they are in the text on Page 1-5.

101 The Figure showing projected remaining years of capacity as 10 is incorrect. See the above comment regarding projected lifespan.

102 The figure of 43.6 million tons of permitted capacity is also incorrect. Current permitted capacity equals approximately 28 million tons. However, within the context of the other incorrect figures given in this table, the Department of Public Works would request that reference to the San Diego County system be removed from the table.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF SAN DIEGO, DEPARTMENT OF PUBLIC WORKS, SIGNED BY JOHN A. MILLER, ACTING DEPUTY DIRECTOR, DATED MAY 12, 1994.

Response to Comment No. 99

Comment noted, Table 1-1 of the Final EIS/EIR provides the most current and consistent overview of the solid waste generation and disposal capacity in Southern California available from the California Integrated Waste Management Board. More recent data, supplied by the various solid waste jurisdictions, are provided in the paragraphs that follow Table 1-1. These data were not reviewed by the CIWMB.

Response to Comment No. 100

Comment noted, please see response to Comment No. 99. A footnote has been added to Table 1-1 in this Final EIS/EIR to clarify that the San Diego County data includes the City of San Diego.

Response to Comment No. 101

Comment noted, please see response to Comment No. 99.

Response to Comment No. 102

Comment noted, please see response to Comment No. 99.

Mesquite
Landfill

Mr. Zale -2- May 12, 1994

103 The Department of Public Works would also like to comment that the DEIR and SEIR do not address potential impacts to San Diego County should waste from the County be transported to Mesquite Regional Landfill. Consequently, it is the Department of Public Works belief that a Supplemental EIR/EIS would have to be completed before any waste from the County could be disposed of at Bolo Station. We would request that this be pointed out in the section entitled "Purpose and Need for the Project".

The County of San Diego hopes that these comments will be of use to you in making your decision regarding the Mesquite Regional Landfill.

If you have any questions regarding these comments, please feel free to call Jon Rollin, Program Coordinator at (619) 974-2709.

Very truly yours,

JOHN A. MILLER, Acting Deputy Director
Department of Public Works

JAM:JR:bs

cc: Jurg Heuberger

RESPONSE TO COMMENT LETTER RECEIVED FROM THE COUNTY OF SAN DIEGO (CONTINUED)

Response to Comment No. 103

Comment noted. Final EIS/EIR Table 1-3 has been revised to show that rail haul from the LATC, City of Industry Intermodal, or Niland is addressed in this EIS/EIR and that rail haul from other areas may be subject to future environmental analysis. In fact, any jurisdiction wishing to export MSW to another jurisdiction must include an export element in its Integrated Waste Management Plan (IWMP). Adoption of and amending IWMPs are discretionary actions, subject to the requirements of CEQA.

2000
Mesquite
Landfill

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN • REGION 7
73-720 FRED WARING DR., SUITE 100
PALM DESERT, CA 92260
Phone (619) 346-7491
FAX (619) 341-6820

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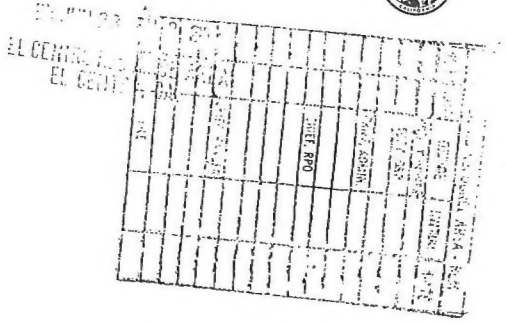


Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Attn: Mr. Thomas Zale

Re: Review and Comments on the Draft EIS/EIR for the Proposed Mesquite Regional Landfill

The above document has been reviewed and the Regional Water Quality Control Board's comments are as follows:

104 1. The area of the project site reported in various sections of the draft EIS/EIR and the Report of Waste Discharge (ROWD), are inconsistent. 4245 acres was reported in the Executive Summary, 4250 acres in the Abstract of the draft EIS/EIR and 4274 acres in ROWD. This should be reconciled.

105 2. The base liner proposed by the applicant/discharger was referred to as "triple composite liner" throughout the text. The word "triple" implies that there are three composite liners in the proposed containment system. However, this is not true, vis - a - vis 40 CFR 258.40(b). The liner proposed by the applicant is an alternative composite liner as per 40 CFR258.4 (a)(1). The term "triple composite liner" should be replaced by "alternative composite liner".

106 3. In the Abstract, "lower Colorado River Regional Water Quality Control Board" should be corrected to "California Regional Water Quality Control Board, Colorado River Basin".

107 4. Replace "Waste Discharge Order (WDO)" by "Waste Discharge Requirements (WDR)". This applies to several sections of the text.

108 5. The applicant has provided very little detail about the Pilot program for MSW conditioning to increase LFG production. In principle, the prevailing Federal and State regulations are not in favor of the addition of liquids which might increase the production of leachate and LFG in MSW landfills. This program should than be removed from this application. The applicant may submit a separate application for the pilot program.

109 6. On page 2-39, replace "RCRA subtitle D double composite liner system" with "RCRA subtitle D composite liner system". Also, replace "redundant protection"..... with "protection".

110 7. The applicant proposes to collect and pipe any leachate generated within a landfill segment to a holding tank. "Each segment would have its own holding tank". This means that there would be about 43 tanks. What are the details and locations of these holding tanks? Are the tanks going to be within the landfill footprints? If so, how does the applicant intend to prevent /contain any

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7, SIGNED BY ROBERT PERDUE, SENIOR ENGR. GEOL., DATED JUNE 22, 1994.

Response to Comment No. 104

Please see response to Comment No. 64.

Response to Comment No. 105

As agreed to by RWQCB staff, the proposed liner is referred to as a "three component composite liner" in the Final EIS/EIR. This Final EIS/EIR identifies that the proposed liner is an "alternative composite liner' as defined by 40 CFR258.4(a)(1)".

Response to Comment No. 106

The requested change has been made to this Final EIS/EIR.

Response to Comment No. 107

The requested change has been made to this Final EIS/EIR.

Response to Comment No. 108

Comment noted. The Applicant will submit a separate application for the pilot program.

Response to Comment No. 109

The requested change has been made in this Final EIS/EIR.

Response to Comment No. 110

INTRODUCTION

This comment is the first of a number of comments that address the environmental monitoring control systems provided to protect ground water at the Mesquite Regional Landfill. These comments have requested additional clarification regarding the environmental monitoring and control systems that are described in the Draft EIS/EIR. It is intended that this integrated response will allow the issues addressed to be presented in a single, more understandable context.

Response to Comment No. 110 (Cont'd)

A number of the comments have requested the results of engineering analyses and construction quality control procedures required for consideration in connection with permits for the proposed project. Other comments are more generic in nature, questioning the performance properties of materials commonly used for landfill liner and leachate control systems. The extent of detail for these issues provided in the Draft EIS/EIR and in this response to comments is based on what is sufficient to evaluate potential environmental impacts based on the requirements of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Details that are not needed to judge the environmental impacts will be reviewed by responsible permitting agencies.

The discussion is provided according to the following topics:

- Basic Design Philosophy
  - Use of Site's Natural Attributes
  - Segmented Landfill Design
  - Provision of Redundant and Complementary Protection Systems
  - Responses to Observations of Potential Releases
- Description of Systems
  - General
  - Low-Permeability Liner
  - Leachate Collection and Recovery System (LCRS)
  - Landfill Gas (LFG) Control
  - LFG Monitoring
  - Vadose Leachate Monitoring
  - Ground Water Monitoring
- Special Issues Summary
  - Materials and Suppliers
  - Chemical Performance and Longevity
  - Physical Performance
  - Construction Procedures and Controls
  - Monitoring System Spacing
  - Minimization of Leachate

To avoid excessive and unnecessary redundancy, the following discussion makes reference to the Draft EIS/EIR wherever appropriate.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

BASIC DESIGN PHILOSOPHY

Use Of Site's Natural Attributes

One comment was made concerning the length of time that would be required for any leachate to migrate from the landfill to subbasin ground water, and then to the Amos/Ogilby hydrologic basin, which is at least one mile from the site (see discussion in Draft EIS/EIR Section 3.1.2, and Appendix B). This condition occurs because of the natural attributes of the site (e.g., deep ground water and low-permeability vadose zone materials) and is considered to be a positive aspect of the proposed site. For example, these natural conditions are preferable to a site located immediately above a permeable aquifer, where contamination would quickly occur as the result of a gas or leachate leakage.

In spite of the relatively favorable site conditions, the control and monitoring systems proposed to protect ground water (described in Draft EIS/EIR Sections 2.1.5, 2.1.6 and 2.1.7) are substantially more extensive than would normally be used for a municipal solid waste (MSW) residue landfill. The more elaborate systems are being required by the Regional Water Quality Control Board (RWQCB) to account for the large size of the landfill, and to provide an early warning if an escape of LFG or leachate were to occur. Care has been taken, however, to avoid monitoring systems that would jeopardize the site's natural attributes. For example, no ground water monitoring wells are proposed for areas directly beneath the landfill, where they could provide a potential pathway for gas or leachate directly to the saturated zone.

An additional site attribute is the arid environment in the project region. Temperatures range from a high of about 108° F in July to a low of about 40° F in January, respectively. Average annual rainfall in the site area is on the order of 3 to 4 inches , and usually varies from about 1 to 14 inches. The evaporation rate in the site area is estimated to be about 100 inches per year. The resulting large evaporation to rainfall ratio results in a condition where infiltration of precipitation to recharge ground water does not generally occur. This condition is verified by measurements of soil moisture content measured from boring samples in the site area by

Response to Comment No. 110 (Cont'd)

Sargent, Hauskins and Beckwith (1984).[1] That data showed the existing soil moisture content is below the field moisture capacity. This condition indicates that there presently is insufficient moisture in the vadose zone materials to cause downward migration of water. This condition would help to reduce the potential for escaping landfill liquids to travel to ground water because moisture from any very small leaks through the three component composite liner (see discussion below on complimentary and redundant protection systems) would initially have to raise the moisture content of a large volume of vadose zone material before downward migration toward ground water could occur.

Segmented Landfill Design

Although the proposed landfill is large in scope and would operate for as long as 100 years, the ground water protection and monitoring systems are designed around 43 separate segments which have been established as part of landfill development plan (see description in Draft EIS/EIR Section 2.1.4.1 and Figure 2-9). The purposes of the segments would be to:

- Subdivide the leachate and gas control systems and the related monitoring systems into relatively small (1,500- x 1,500-foot) areas. Separating these systems would allow the operator to monitor and evaluate the performance of leachate and LFG control systems at locations throughout the landfill. If unanticipated adverse conditions were to occur, their location could be pinpointed and response activities (discussed in Draft EIS/EIR Section 2.1.7.3) would be implemented in the area of interest.
- Minimize the time before individually monitored portions of the landfill are provided with final cover and therefore provide maximum protection against potential rainfall infiltration (and leachate generation).
- Limit the length of time that individually monitored portions of the landfill are exposed to LFG pressures. Once filling above a segment has reached its maximum design height and disposal has been completed, the gas generation rate begins to decrease and continues to occur for only a finite period (as discussed below).

(1) Sargent, Hauskins and Beckwith (SHB). Geotechnical Investigation Report, Mesquite Project, Imperial County, California, 1984.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

- Provide a logical geometric pattern for periodically expanding liner and monitoring systems as the landfill grows.

Figure 2-10 of the Draft EIS/EIR illustrates an example of how landfill development would advance for the first 16 segments. As shown in Draft EIS/EIR Figure 2-20, each segment would be separated by containment berms constructed to allow potential leachate generation to be monitored separately. An independent LCRS would be installed for each segment, with pipes extending out of the landfill. Separate vadose monitoring systems would also be added with each segment. This separate containment system would allow for close scrutiny of the performance of each landfill segment and, in the unlikely event of a release, for more focused response activities.

For the group of segments shown in Draft EIS/EIR Figure 2-10, the longest time that any segment would be in operation before the final cover is placed would be approximately ten years.[2] (See, for example, Segment D in Figure 2-10.) This represents the longest time that an area would be exposed to rainfall without the protection of the final cover. Infiltration studies (see Minimization of Leachate section below) conducted for the proposed Mesquite Regional Landfill indicate that almost no infiltration would occur through daily and intermediate cover materials placed at 10-foot-vertical intervals as the height is raised. According to these site-specific studies, minor infiltration, which may infrequently occur, would be absorbed by the underlying waste without migration to the LCRS. These same studies also show that the potential for infiltration after the final cover is installed is essentially zero. Therefore, because landfill development would occur through these separate segments, the time until closure (and placement of final cover) at any location to be far less than the overall 100-year life of the total facility. As a result, the potential for long-term leachate flow in any particular area (or segment) is also essentially zero.

Because of the low potential for any leachate to occur, LFG is considered to be the greatest potential threat to ground water for the proposed

(2) This assumes the maximum schedule for receipt of daily MSW residue tonnage up to 20,000 tons per day after Year 7. At lower daily volumes, a segment might be in operation longer, but LFG volumes would also be lower due to less MSW residue.

Response to Comment No. 110 (Cont'd)

landfill. As a result, the landfill control and monitoring systems have been designed with particular attention to LFG generation. A key design factor is control of LFG generation in the lower portions of the landfill, immediately above the liner. Uncontrolled LFG in this area could generate a driving force that could cause gas pressure against the liner, thereby increasing the potential for a release. Figure 2-18 shows a landfill cross section with LFG collection piping. The LFG Control section, below, describes the arrangement for horizontal vacuum wells throughout the landfill, including more closely spaced collectors in lower portions of the landfill. The closer spacing is provided to assure the highest level of control immediately above the liner.

These designed control systems would be assisted by natural degradation factors that would result in the earliest decline of LFG generation rates in the bottom areas of each segment. This is illustrated in Response Figure 5.

This figure shows that maximum LFG generation above the liner in the Segment D area would occur at about the same time that the last waste is placed on that segment prior to placement of final cover. LFG generation would then decay to a fraction of its initial value over the next 30 to 40 years. More importantly, this figure also shows that the LFG buildup and decay curve for the bottom 20 feet of MSW residue at Segment D lasts for a much shorter period of time. During this short period, the conservatively designed close horizontal well spacing of this lower level would prevent the buildup of any significant pressure on the landfill liner system.

Provision of Redundant and Complementary Protection Systems

A number of the comments to the Draft EIS/EIR indicate that the perfect operation of individual materials or protection/monitoring components cannot be guaranteed and that the systems cannot be accessed for repair after they are incorporated into the landfill. These conditions exist for any landfill and are the basis for the Environmental Protection Agency's (EPA's) approach to specifying minimum composite liner requirements in their Subtitle D regulations and have been a major consideration for development of the even more protective systems proposed for the Mesquite Regional Landfill.

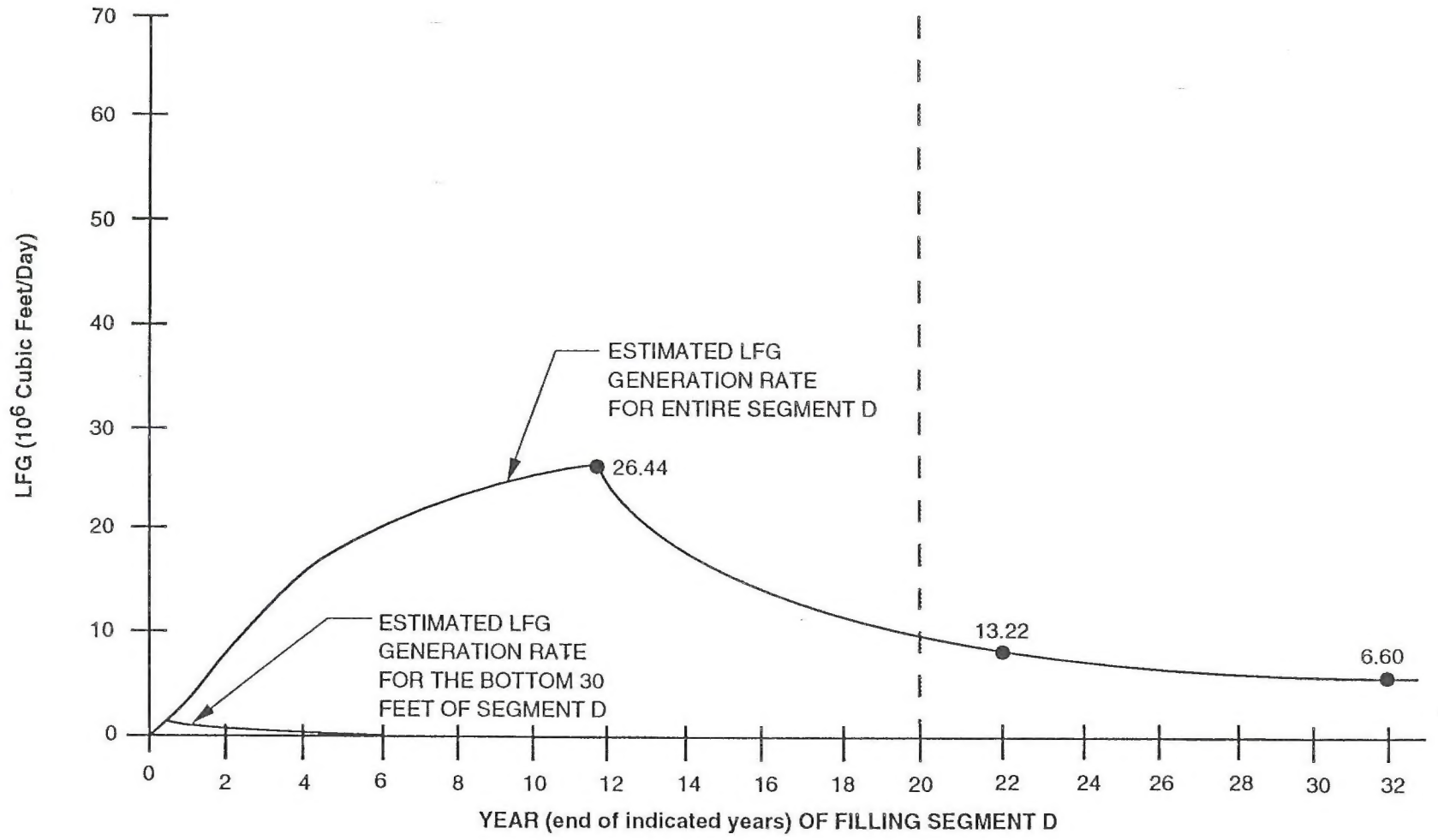
RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

For any landfill, the risk of affecting ground water is minimized by first selecting a site with strong attributes for protecting ground water. The Mesquite Regional Landfill site (arid conditions with a thick, low-permeability vadose zone) fits this criterion. The second line of defense against potential releases is to provide a high level of quality control on the material preparation and installation procedures. These provisions are incorporated into the Mesquite Regional Landfill design and construction program, as discussed in the Construction Procedures and Control section, below.

An additional level of protection can be achieved through redundancy, so that a release cannot occur unless two or more elements do not perform properly at the same time and location. An example of redundancy occurs in the case of the LCRS (see LCRS section of this response). The one-foot gravel drainage layer established above the liner is designed to remove any leachate in accordance with state and federal regulations (California Code of Regulations [CCR] Title 23, Section 2543[b]; Code of Federal Regulations [CFR] Title 40, Section 258.40[a][2]). For the Mesquite Regional Landfill, perforated pipes are also provided in the gravel to act as secondary (redundant) flow paths. An additional level of redundancy for the LCRS is provided by overflow pipes between landfill segments which would prevent the buildup of a large head of water in the gravel even if the discharge pipe from any segment were to become clogged for any reason. The overflow pipes would be provided through the separating berms so that the depth of liquid above the liner in the lowest corner of any segment could not exceed 12 inches. At that depth, leachate would flow through the overflow pipes into the downgradient segment, where it would be collected and transported out of the landfill for recovery and treatment.

Yet another level of protection occurs through use of complementary components such as the three separate elements (two flexible membrane liners [FMLs] and clay) of the three component composite liner system. The benefit of using complementary components for landfill liners was recognized by the EPA when it specified the requirement for a composite liner under their Subtitle D regulations. This underlying basis for the EPA's decision making is further discussed in the Chemical Performance and Longevity section, below.



NOTE: METHANE IS THE KEY COMPONENT OF LANDFILL GAS, THOUGH CARBON DIOXIDE IS GENERATED AT APPROXIMATELY THE SAME RATE.

SOURCE: Environmental Solutions, Inc., 1992.

Mesquite Regional Landfill

Estimated LFG Generation Rate

RESPONSE FIGURE

5

Response to Comment No. 110 (Cont'd)

For direct leakage to occur through the proposed liner system, the clay layer would have to be defective at the same location as both FMLs. Such a defect is not likely because clay would be constructed with careful control of compaction and moisture content, and specifications would require .frequent wetting to avoid desiccation cracking. However, to evaluate this possibility, a probabilistic model was developed to determine the likelihood of defects being aligned in both FMLs and the clay. To be conservative, it was assumed that seepage would result if the alignment was within a diameter (D_S) five times larger than the defect (D = 0.45 inches) in the FML as illustrated in Part A of Figure H.3-2 in Appendix B of the Draft EIS/EIR. The probabilities were calculated of such alignment occurring for: (1) any single acre; and (2) within a 59-acre segment are illustrated in Part B of Figure H.3-2. Considering a value of D_S of five times D, or 2.2 inches, the probability of three defects being aligned is about 3×10^{-13} for any given acre, or 2×10^{-11} for any segment.

The following Response Table 9 shows the degree to which the above type of redundancy and complementary systems have been incorporated into the proposed ground water protection and monitoring systems described in Sections 2.1.5, 2.1.6 and 2.1.7 of the Draft EIS/EIR for the Mesquite Regional Landfill. As a result, the potential for ground water contamination to occur would be extremely small, both with respect to the Mesquite Regional Landfill itself, and in relation to all other landfills being operated in California and throughout the rest of the United States.

Responses To Observations Of Potential Releases

Section 2.1.7.3 of the Draft EIS/EIR discusses actions which would be taken in the event that the early warning monitoring systems were to indicate the potential release of LFG or leachate. That discussion states that if:

> "a collected sample from the subsurface monitoring systems indicates that a potential release from the liner system exists, a detailed program of investigations would be conducted to locate the area of release. Once located, a response program would be devised and implemented to correct the problem. A response program based on current technology could include the following:

Response to Comment No. 110 (Cont'd)

RESPONSE TABLE 9
GROUND WATER PROTECTION
REDUNDANCY AND COMPLEMENTARY FACTORS

GROUND WATER PROTECTION CONSIDERATION	REDUNDANCY AND COMPLEMENTARY FACTORS
Minimization of the Potential for Leachate	• Only MSW residue from which recyclables (e.g., green wastes) have been removed would be accepted. • The resulting MSW residue would be transported in covered, water-resistant containers. • The site has low rainfall and high evaporation characteristics. • The wastes would be covered with fine-grained, compacted soils daily, at vertical intervals of 10 feet. • The final, low-permeability cover materials would be installed as soon as waste disposal is completed in each area.
LCRS Function	• 12-inch gravel layer. • Perforated pipes within gravel. • Overflow pipes between segments for redundant piping.
Subsurface Migration Potential	• The vadose zone is thick and consists of low-permeability materials. • Graded surface would be capped with approximately 3 inches of compacted clay. • Low-permeability liner system consists of three components (two FMLs and clay), which are made of different materials and exposed to different environmental conditions.
Gas Control and Monitoring	• Routine monitoring of each gas collection pipe for LFG flow rate and methane content. • Vacuum probes at the top of the operations layer (bottom of waste) to assure adequate operation of the control system. • Vadose zone gas monitoring wells at 25 locations, 50 feet below each segment. • Perimeter gas detection wells. • Downgradient ground water monitoring wells.
Leachate Collection and Monitoring	• Monitoring of LCRS to observe for the presence of leachate. • Vadose zone leachate monitoring system at zones with the maximum potential for flow in the LCRS. • Vadose zone gas monitoring wells, where volatile organics in migrating leachate would be observed. • Downgradient ground water monitoring wells.

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- adjusting the vacuum in the landfill, provided by the existing or an expanded LFG collection system described in Section 2.1.6, to reverse the flow of the leak;
- placing a vacuum on the LCRS system;
- installing additional directionally drilled wells under the liner in the area of the release to increase atmospheric pressure below the liner to stabilize the problem; or,
- installing a low-permeability soil layer at the operating surface in the affected area of the landfill to prevent infiltration of any future rainfall."

DESCRIPTION OF SYSTEMS

General

Several comments indicate that one or more of the ground water protection and/or monitoring systems may not have been fully understood by a few reviewers of the Draft EIS/EIR. The purpose of this section is to describe those systems in one single location. There are no changes to the systems described in the Draft EIS/EIR, and when appropriate, reference is made to locations in the Draft EIS/EIR where the descriptions were originally provided.

The term "waste discharge orders (WDO) " is changed to "waste discharge requirements (WDR) " based upon a comment of preference provided by the RWQCB. The RWQCB staff has agreed to the use of the term three component composite liner" to describe the proposed liner system. The Final EIS/EIR has been revised accordingly.

The system descriptions are provided in the following sections:

- Low-Permeability Liner (Draft EIS/EIR p. 2-39)
- Leachate Collection and Recovery System (Draft EIS/EIR p. 2-39)
- LFG Control (Draft EIS/EIR p. 2-40)
- LFG Monitoring (Draft EIS/EIR p. 2-54)
- Vadose Leachate Monitoring (Draft EIS/EIR p. 2-52)
- Ground Water Monitoring (Draft EIS/EIR p. 2-54)

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Low-Permeability Liner

The proposed liner for the Mesquite Regional Landfill is designed to exceed existing and proposed state (CCR Title 23, Chapter 15) and federal (RCRA Subtitle D) regulatory standards for MSW landfills (see EIS/EIR Figure 2-17). The liner system is designed to control any leachate that might develop. The liner system is also designed to prevent the downward migration of LFG in the event the vacuum control system was not successful in maintaining a negative pressure at the base of the landfill. Because of the arid site conditions, the low-permeability vadose zone, and the large depth to the saturated zone, the migration of LFG (as opposed to leachate) into the subsurface is considered to be the only potential threat of ground water contamination at the proposed site.

The base liner would consist of the following components, starting at the ground level and going up:

- A compacted subgrade prepared with clay or screened soil for liner placement.
- A "three component," low-permeability composite liner that would be highly resistant to gas or liquid penetration. This system would be continuous across the bottom of the entire landfill footprint and would include the following three components:
  - A very low density polyethylene (VLDPE) FML, or equivalent, at the bottom. The thickness of this layer would meet or exceed the 30-mil thickness required for RCRA Subtitle D double composite systems.
  - A 1-foot-thick layer of compacted clay with a permeability of 10^{-6} cm/sec.
  - A second, 60-mil high density polyethylene (HDPE) FML above the clay.

Berms provided to subdivide the landfill into segments would not disrupt the liner system continuity.

The upper 60-mil HDPE component of the proposed liner system meets the FML requirement of RCRA Subtitle D. The proposed liner system's 1 foot of compacted 10^{-6} cm/sec clay plus the lower FML is superior to the 2-foot

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compacted 10^{-7} cm/sec soil layer specified by Subtitle D regulations because:

- The lower FML would reduce the potential for desiccation of the clay. Without a lower FML, the soil layer specified by Subtitle D could dry (lose its humidity) and crack due to the climate and low moisture content of the underlying ground, and consequently become less effective as a barrier to LFG migration. The lower FML greatly reduces the risk of this occurrence by providing a complementary element of safety.
- The clay and lower FML combination is better than clay alone because, in order for a significant leak to occur, there would have to be a defect or weakness in both the clay and FML at or near the same location. The likelihood of this occurring is orders of magnitude less than the potential for a defect or weakness in any single liner component such as a clay layer.

Appendix H to the Hydrogeologic Report (Appendix B to the Draft EIS/EIR) provides a description of why the effectiveness of the 1 foot of 10^{-6} cm/sec clay plus the lower FML (typical FML permeability is about 10^{-11} cm/sec) is much greater than that of 2 feet of 10^{-7} cm/sec soil.

Leachate Collection And Recovery System (LCRS)

The primary regulatory design criteria for the LCRS are that it must: (1) be capable of collecting and removing twice the anticipated volume of leachate in accordance with CCR Title 23, Section 2543(b); and (2) maintain the hydraulic head on the liner at less than 30 cm (approximately 1 foot) in accordance with CFR Title 40, Section 258.40(a)(2).

Under normal operating conditions at the proposed Mesquite Regional Landfill, the LCRS would meet these criteria. No leachate is expected to occur in the LCRS due to the low rainfall and high evaporation conditions which exist at the site and the timely placement of daily and final cover. Infiltration calculations described in the Minimization of Leachate section below, show that after the first 10-foot lift of MSW residue and daily cover is in place, leachate would not be produced. These analyses, using the Hydrologic Evaluation of Landfill Performance (HELP) model developed by the U.S. Army Corps of Engineers (U.S. Army Corps of Engineers, 1992), show that small amounts of infiltration that may occur from infrequent

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storms would be removed by evaporation. There would not be sufficient accumulation of infiltrating water to cause downward migration toward the LCRS to occur. Nevertheless, the LCRS underlying the entire landfill base would be capable of collecting and removing flows equivalent to the infiltration created by a 100-year, 24-hour storm event, if such an event were to occur before the first 10-foot lift of MSW residue was completely installed.

The proposed LCRS would consist of a 1-foot layer of gravel and perforated leachate collection pipes, installed above the proposed low-permeability liner. Perforated pipes for this purpose are proposed to be 4 inches in diameter. The LCRS would provide a free drainage path for any leachate that may reach the base of the landfill, without the potential of creating a large water pressure on the underlying liner system. A geotextile fabric would be provided below the LCRS layer to protect the top FML of the liner system from being damaged. Based upon testing performed for the Mesquite Mine (see Physical Performance section, below), it is anticipated that this cushion layer will consist of 16-ounce geotextile, although site-specific tests will be required to verify the requirements when the actual material suppliers have been selected. A thinner, 8-ounce geotextile fabric would be placed above the LCRS to filter fine particles carried with any leachate, to avoid clogging of the LCRS.

Although not anticipated, if leachate were to occur, it would be collected in the perforated pipes within the LCRS gravel layer for each segment and flow along the graded slope toward its southwest corner. The flow from each segment would be conveyed by an unperforated pipe to a sump at the outside toe of the landfill. The Draft EIS/EIR indicates that each segment would have its own holding tank for collected leachate. This statement is misleading; in fact, each segment would have its own piping system to allow for independent measurement and testing of collected leachate, if any. Either a single or a few sumps would be designed to receive flow from several pipes. The sumps would be connected to the on-site water reclamation facility (see EIS/EIR Section 2.1.14) by a leachate collection header pipe.

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LFG Control

It is estimated that approximately 1.3 cubic feet of LFG would be produced from each pound of solid waste deposited in the Mesquite Regional Landfill (see Draft EIS/EIR Appendix F for calculations). This estimate reflects a portion of the biodegradable organic materials (e.g., recyclable paper, cardboard and green wastes) being removed from the waste stream pursuant to Assembly Bill (AB) 939 reduction and recycling efforts by the originating jurisdictions, and inhibited LFG production due to the low moisture content of the waste and dry desert environment. Although small on a unit basis, the production rate would still be large for the overall landfill because of the facility size. As discussed above in the Low-Permeability Liner section, the production of LFG represents the greatest potential threat for ground water contamination to occur at the proposed site, especially since actual liquid leachate is not expected to be generated. As discussed, the LFG generated at the critical bottom portion of any segment would occur within several years after waste is initially placed. Then the rate would gradually decrease as the available organic materials are degraded. Within about 30 to 40 years, most of the LFG production for the entire segment would have been generated.. Any additional LFG production which may occur for a substantially longer period would be at only a small fraction of the maximum rate so that control systems would become increasingly conservative with time.

The primary LFG migration control mechanisms would be the gas collection system designed into all portions of the landfill. Such systems have not been included in original landfill designs until recently. During the past decade, the potential effects of uncontrolled LFG migration on ground water quality have become well understood and existing landfills have been successfully retrofitted with control systems for that specific purpose.

The system planned for the proposed Mesquite Regional Landfill is comparable to, or more extensive than, those being installed in any modern landfills. It would consist of a bottom row of horizontal gas collection wells 20 feet above the liner and spread at 125-foot centers. Horizontal collectors for the remainder of the landfill height would be at 50-foot-vertical and 250-foot-horizontal spacings. The purpose of the more dense collector spacing near the base of the landfill is to provide added assurance that a vacuum condition can be maintained above the

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three component composite liner system. Without positive pressure, there would be no driving force to cause downward migration of LFG through the liner and into the underlying vadose zone.

The proposed liner, also discussed above, represents a redundant physical barrier to prevent the downward migration of LFG. This system, although not generally relied upon because of the vacuum control system, would be highly effective for that purpose because of the complementary material types and the very low probability of continuous defects through each layer to occur.

LFG Monitoring

The LFG-related monitoring systems would be installed to confirm effective performance of the collection and control systems discussed above. The extent of this monitoring exceeds that normally required by state or federal regulations, primarily because of the conservative RWQCB approach for large landfills, and the need to provide-extensive monitoring coverage because of the naturally low-permeability characteristics of the site's vadose zone materials.

LFG Base Pressure Monitoring - Final EIS/EIR Figures 2-20 and 2-27 show gas pressure sensors, which would be provided at the base of the landfill (top of the operations layer) to allow monitoring of the pressure gradient above the liner. This monitoring would be used to assure that the gas pressure above the liner is maintained below atmospheric pressure so that there is no driving force for LFG to migrate downward. If positive pressures were observed to occur, the vacuum applied to the LFG control system would be immediately adjusted.

Vadose Gas Monitoring Wells - The following two types of gas monitoring wells would be used:

- Internal vadose zone gas monitoring wells, completed within the landfill footprint.
- Perimeter gas monitoring probes, completed approximately 200 feet outside of the landfill footprint.

Typical locations and configurations for these wells are shown in Final EIS/EIR Figures 2-11, 2-20, 2-21, 2-27, and 2-28.

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The internal vadose zone gas monitoring wells would be completed to a depth of approximately 50 feet below the base of the landfill, with the lower 5 feet screened. The upper portion of the well would be sealed with cement/bentonite grout. This design is intended so that the vacuum applied to the well would obtain a pore gas sample from far above the ground water level to provide early detection in the event of a leak, without creating negative pressure immediately below the three-component composite liner system. Initially, 25 internal vadose zone monitoring wells would be installed on a 300-foot-square grid in each approximately 1,500- by 1,500-foot segment. Locating the wells on such a grid would: (1) provide wide coverage for gas and/or leachate detection under the liner area; and (2) assure that testing would occur near any fracture zones, if such unanticipated features exist in the Bear Canyon Conglomerate bedrock. The number and spacing of these wells could be modified as additional segments are designed, as determined by the RWQCB.

Each of the internal vadose zone monitoring wells would be completed with a connector pipe extending to the landfill perimeter. The pipes for each segment would be combined into one trench aligned along the centerline of the area as shown in EIS/EIR Figure 2-20.

The appropriate length of time and amount of applied vacuum for operating the vadose monitoring system would be determined based on testing performed after each well installation. The goal would be to extract sufficient pore space volume to affect a 50-foot radius at each well. If possible, this condition would result in the sampling of the pore space up to the base of the landfill, without creating a large vacuum directly under the proposed liner. The testing may show that the volume of pore space removed would vary by well, depending on the permeability of material at the depth it is screened.

For LFG monitoring, the vadose pore gas wells would be sampled quarterly and analyzed in the field for methane using a detection limit in the parts per million range. If an elevated methane content is observed at any well, a sample from that location would be obtained for detailed organic content tests. Also, at that time, the LFG control system in the affected area would be adjusted to increase LFG collection vacuum, as described in a response strategy in Section 2.1.7.3 of the EIS/EIR.

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Samples and tests for constituents would also be performed on an interval specified by the RWQCB to analyze for VOCs associated with leachate. That monitoring could be discontinued with permission of the RWQCB if the LCRS and vadose leachate monitoring system discussed below confirm that leachate is not being developed.

The perimeter gas monitoring probes would be installed outside the landfill footprint at approximately 1,000-foot intervals. The primary purpose of these probes is to monitor compliance with CFR Title 40, Section 258.23(a)(2), which specifies that the concentration of methane gas must not exceed the lower exposure limit (LEL) at the property boundary. The perimeter monitoring probes would consist of two 1/2-inch-diameter (or equivalent) probes each, to depths of about 10 and 30 feet.

Vadose Leachate Monitoring

A vadose zone leachate monitoring layer (secondary LCRS monitoring system) underlain by an additional FML (EIS/EIR Figure 2-20) would be installed beneath the three component composite liner at the southern and western boundaries and at the southwestern corner of at least the initial landfill segments. A cross section of this monitoring layer for the initial landfill segment is shown in EIS/EIR Figure 2-27. This feature is proposed because the south and west boundaries of the segment are the "low" sides where flows would collect if leachate were to be generated and not be removed by collector pipes. As a result, these boundaries are the only areas where extended accumulations of leachate above the proposed liner could occur; and are the appropriate areas for secondary LCRS vadose zone leachate monitoring.

The vadose leachate monitoring system would monitor for any seepage flow through the proposed liner in these special areas, and would consist of the following components, from the bottom to the top:

- A bottom, 30-mil VLDPE FML to prevent downward seepage if any liquid reaches the secondary drainage layer.
- An 8-ounce geotextile fabric to provide increased friction strength between the FML and an overlying geogrid.

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- A free-draining geogrid to collect any leachate (i.e., a synthetic porous material that is highly permeable to liquids and easy to install).
- An 8-ounce geotextile fabric to provide increased friction strength between the geogrid and the lower VLDPE member of the three component composite liner system that would directly overlie it.

The leachate monitoring layer for each segment would be connected to unperforated pipes extending to individual sumps designed for this purpose at the outside boundary of the landfill. The primary purpose of these sumps would be for monitoring to verify that leachate is not present in the vadose zone leachate monitoring system. If any small amounts of leachate were to occur at these locations, the liquid would be collected and transported to the water reclamation facility. Each sump would be observed at least quarterly to determine if any flow is occurring.

Ground Water Monitoring

As an additional protection, ground water monitoring wells located upgradient and immediately downgradient from the perimeter landfill segments would be sampled on a schedule specified by the RWQCB.

Well Network and Configuration - The locations of existing ground water monitoring wells LGW-1, LGW-2, GW-1 and GW-4 that would be used for the Mesquite Regional Landfill are shown in Draft EIS/EIR Figure 3-12. Lithologic logs for these wells are provided in the Hydrogeologic Assessment Report included in Appendix B to the Draft EIS/EIR. These wells would be utilized to establish background ground water chemistry, beginning at least one year prior to initiation of MSW residue disposal. Additional ground water monitoring wells would be installed as the landfill is constructed to provide a network of wells downgradient of the landfill footprint.

The ground water monitoring well network would be expanded by drilling borings along the landfill perimeter. As discussed in the Monitoring System Spacing section below, one additional well would be provided at each downgradient edge of the first landfill segment. Subsequently, an additional ground water monitoring well would be installed at least one

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year prior to disposing of MSW residue at each downgradient perimeter landfill segment.

For wells completed in the basement rock, locations would be based upon water yield measured during drilling, because the basement rock is not water bearing outside of the low-permeability fracture zones. For these areas, borings would be drilled to a depth of approximately 50 feet below the regional piezometric surface at approximately 400-foot centers as shown for the initial segment in EIS/EIR Figure 2-20. Borings would be drilled until a hole is located in a water-yielding fracture zone, which could then be completed as a monitoring well. Holes that are dry or yield too little water to provide effective monitoring would be grouted from bottom to top with a cement/bentonite slurry. If all of the borings drilled for any given segment are dry, one hole would still be completed, and monitored to determine if water collects in the well over time.

SPECIAL ISSUES SUMMARY

Materials And Suppliers

Several commentors requested information concerning the suppliers of materials to be used for various portions of the LCRS, liner and monitoring systems, including an indication of the material and supplier's experience. It is not possible to specify exact suppliers at this time since the construction work would be competitively bid by qualified contractors. It is possible, however, to indicate the types of materials anticipated to be used for each component and the currently available qualified suppliers.

The following Response Table 10 provides this information together with the types of design factors which would be specified for each component and material type. As shown, each of the materials would be provided by third party suppliers except for locally derived gravel and clay. The gravel and clay would be supplied by either a retained earth moving contractor or an on-site landfill construction crew.

Each of the indicated suppliers has the experience of providing similar materials for many modern landfill projects. The indicated materials are frequently used to satisfy current federal and state regulations.

RESPONSE TABLE 10

MATERIAL SPECIFICATIONS AND POTENTIAL SUPPLIERS

ITEM	MATERIAL TYPE (OR EQUIVALENT)	DESIGN FACTORS TO BE SPECIFIED				EXAMPLE POTENTIAL SUPPLIERS
Geotextile Fabrics	Geotextile Nonwoven Needle Punched Polypropylene	• Weight • Thickness • Grab strength	• Trapezoidal tear strength • Puncture resistance	• Mullen burst strength • Water flow rate	• Apparent opening size • Permittivity • Permeability	Polyfelt, Wellman, Exxon, Amoco, Nicolon, Mirafi.
Flexible Membrane Liners (FMLs)	High Density Polyethylene (HDPE) and Very Low Density Polyethylene (VLDPE)	• Density • Thickness (minimum and lowest individual) • Yield strength	• Tensile strength at break • Elongation at yield and break • Tear resistance • Dimensional stability	• Puncture resistance • Carbon black content • Carbon black dispersion	• Melt index • Environmental stress crack • Low temperature impact	Gundle, Serrot, SLT North America, Inc., National Seal.
Leachate Collection and Recovery System (LCRS) Gravel	Native Gravels	• Sieve analysis (ASTM D422)	• Los Angeles Rattler Machine	• Abrasion Test • Permeability		To be obtained from onsite gravel resources.
Liner Clay	Native Clay Materials from Stockpile or Borrow Pit	• Moisture content	• Atterberg limits • Sieve analysis	• Moisture/ density relationship	• Hydraulic conductivity	To be obtained from claystone at adjacent gold mine.
Perforated LCRS and Landfill Gas (LFG) Control Pipes	HDPE and Corrugated Pipe	• Pipe bearing test (ASTM C497)	• Standard test method for resistance of plastics to chemical reagents (ASTM D643)	• Standard specifications for corrugated poly-ethylene tubing and fittings (ASTM F405 and F667)	• Standard specification for corrugated polyethylene drainage tubing (AASHTO M252 and M294)	Advanced Drainage Systems (ADS), Plexco/Spirolite, Lidco.
Vadose Zone Leachate Monitoring System Drainage Layer	HDPE Geonet or Geocomposite	• Polymer density • Polymer melt index • Carbon black content	• Nominal thickness • Nominal mass per unit area • Transmissivity at 15,000 psf	• Tensile strength machine direction • Apparent opening size	• Cross plane permeability • Permittivity and permeability	Polyfelt, Exxon, Amoco, Mirafi, Tensar.
Vadose Zone Gas Monitoring Well Casing and LFG Monitoring Vacuum Probe	Schedule 80 Polyvinyl Chloride	• Codes and Standards: ANSI standard for pipe and fitting dimensions code for petroleum refinery (ANSI-B31.3) and ASTM D1784.				Pacific Pipe, general pipe supply warehouses.

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Chemical Performance And Longevity

Several commentors request information about the resistance of selected liner, LCRS, and monitoring system component materials to chemicals that would be expected to exist in leachate and the length of time that they could be expected to function, especially in light of the 100-year design life of the proposed landfill. The presumption made in some of the comments is that materials would be exposed to leachate for that entire period.

As discussed in the Segmented Landfill Design section above, it is not anticipated that the LCRS and low-permeability liner system for the Mesquite Regional Landfill would be exposed to leachate at all, unless rainfall occurs during the short period that the first lift of MSW residue is being placed at any specific segment. If leachate were to occur due to a precipitation event while the first lift was being placed, the chemistry of the liquid passing through the LCRS would be nearly that of the rainwater, with the potential for only trace amounts of constituents associated with water that may have come in contact with the active disposal face.

The potential for leachate development and bottom liner system exposure would then diminish with time as each layer of: (1) compacted daily or intermediate cover; and (2) subsequent lifts of waste; (both of which would restrict downward leachate migration) is placed. In the event that some leachate were to develop as the landfill height increases, its chemical characteristics would likely include inorganic ions such as chloride, sulfate, carbonate, sodium, magnesium, and calcium. It would also likely include numerous organic compounds, which would depend upon the nature of the MSW residue.

The geosynthetic material specified for the liner and LCRS systems are specified to be resistant to chemical attack from these types of constituents. These resistance capabilities of polyethylene FMLs are discussed in EPA's Technical Manual for Solid Waste Facilities, as discussed below. The potential for any infiltration of rainfall would become essentially zero as the final cover is placed for each segment, using the "close as you go" concept for the landfill. The longest period between expected waste placement initiation and placement of final cover at any segment of the proposed landfill is estimated to be less than 20 years.

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Also, as previously discussed, the length of time that the liner system may be exposed to LFG pressure would be less than several years because of the relatively closely spaced gas control trenches (shown in Figure 2-19 of the Final EIS/EIR) planned to be installed where the waste reaches a height of just 20 feet. Additional gas control trenches would then be added in 50-foot-height increments to provide control throughout the proposed landfill.

Because of the above conditions, the leachate and gas migration control systems at any one location would not be required to function for the entire 100-year life of the landfill. Instead, the segmented approach to the proposed design means that LFG and leachate control systems at each segment would be required to function for periods similar to those of much smaller landfills, which are currently being designed, constructed, and operated according to EPA's Subtitle D regulations. After this time period, the LFG generation rate would have diminished entirely or to a small fraction of that for which the control system is designed. In addition, the proposed layered landfill configuration and final cover would prevent the creation of additional leachate. Monitoring and maintenance of areas closed early in the operation would continue through the 100-year life of the landfill and into a postclosure period lasting at least 30 years, or an appropriate longer period as determined by RWQCB.

Nevertheless, the proposed systems are designed to be serviceable for very long periods because of the selection of materials and the use of redundant or complementary components. In their "Solid Waste Disposal Facility Criteria" Technical Manual[3], EPA discusses the benefits of using two different, complementary materials for the low-permeability (hydraulic barrier) composite liner system, as required by 40 CFR, Sections 257 and 258 (Subtitle D) regulations for MSW landfills. Though the FML (geomembrane) component of the composite liner theoretically could contain defects (e.g., tears, improper seams, pinholes), the presence of the low-permeability clay component would restrict leakage by limiting the flow rate through the defect.

The complementary aspects of the two materials also enhance the long-term durability of the proposed liner system. EPA's Technical Manual

(3) EPA S30-12-93-017. *Solid Waste Disposal Facility Criteria*, Technical Manual, November 1993.

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indicates that chemical resistance testing of geomembranes may not be required for MSW landfills because EPA's database has shown that leachate from these types of facilities is not aggressive toward those types of synthetic materials. Further, as discussed in the preamble to Subtitle D regulations (CFR Title 40, Sections 257 and 258), EPA states that there are many reasons to believe that the quality of leachate would be even less aggressive over time as a result of activities such as the institution of household hazardous waste programs and removal of toxics from waste prior to disposal.

Regarding the soil component of the composite system, testing data reported by Griffin and Shimp (1978) and Daniel and Lilgestrand (1984) show that the permeability of clay is steady or decreases with time when exposed to MSW or hazardous industrial waste leachate. Daniel (1987) concludes that dilute liquids appear to be incapable of increasing permeability in soils.

The complementary benefit identified by EPA for a two-component composite liner would be enhanced even further for the Mesquite Regional Landfill because the proposed liner system includes an additional FML beneath the low-permeability clay layer. The large benefit of the three component composite system with respect to leakage prevention is discussed above in the Redundant and Complimentary Protection Systems section of this response. The third complementary component (bottom FML) would also enhance the long-term performance capabilities of the proposed low-permeability liner system as compared to EPA's Subtitle D two-component composite configuration, because the bottom FML would be exposed to environmental conditions that are different from the top FML, minimizing the potential for any single environmental condition to adversely affect the liner system performance. For example, the bottom FML would be exposed only to inert clay used to prepare the subbase and to construct the low-permeability soil portion of the composite system.

Also, as previously discussed, the proposed LCRS system is designed with redundant materials, each of which have the capacity to remove leachate from any landfill segment. A third element of redundancy is provided by overflow pipes between segments, which would function only in the remote event that one of the main leachate pipes was not functioning properly.

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The geogrid to be used for the leachate vadose zone monitoring system is made from polyethylene, the same material used for the FMLs. Although resistant to leachate, the potential for the geogrid to be exposed to liquids for any significant period, if at all, is essentially zero. The proposed geotextile materials would be made of either polypropylene or polyester fibers, both of which are routinely used for modern landfill construction. These materials are more susceptible to degradation from sunlight (UV light) than the polyethylenes used for the FML components. However, the geotextiles' UV light exposure would be prevented after their initial placement and burial at the Mesquite Regional Landfill. Subsequently, there would be no environmental exposure that could accelerate their decomposition.

Physical Performance

The following Response Table 11 lists the type of engineering calculations that are routinely performed during final permitting and design to assure that materials selected for use in MSW landfills perform appropriately.

Most of the calculations shown in the table are similar to those that are routinely performed for many types of constructed facilities. Those that are especially important for landfills are:

- Slope stability (especially due to earthquake loading), because of the relatively low strength (friction angle) that exists between synthetic FML and clay in the three component composite liner system.
- The deformation of the liner which would occur due to settlement of the subsurface materials under the weight of the landfill.
- Puncture resistance of the FML due to the weight of the landfill.

Section 3.1.1.3 and Appendix C of the EIS/EIR discuss earthquake conditions in the vicinity of the proposed Mesquite Regional Landfill. Based on extensive information developed from the adjacent mining operation and site-specific investigations, it has been determined that there are no active faults (faults which have had displacement within the past 10,000 years) near the site. Instead, the nearest potentially active fault is about nine miles west of the site. The seismicity investigation showed that while the western portion of Imperial County is seismically

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RESPONSE TABLE 11
PHYSICAL PERFORMANCE CALCULATIONS
FOR FINAL PERMITTING AND DESIGN

COMPONENT	ENGINEERING CALCULATIONS	METHOD OR BASIS OF CALCULATION
LCRS System	• Crushing Resistance of Pipes • Flow Capacity of Gravel • Flow Capacity of Pipes • Maintenance of Drainage Slope	• Compliance with Manufacturer's Specifications • Flow Through Porous Method • Standard Hydraulic Calculations • Differential Settlement of Subsurface (Bear Canyon Conglomerate Bedrock) Material
Low Permeability Liner System	• Puncture Resistance of FML • Static Slope Stability Along Weak Interface Planes • Earthquake Slope Stability Along Weak Interface Planes • Induced Stresses and Strains Due to Foundation Differential Settlement	• Empirical Laboratory Test Comparisons • Standard Static Slope Stability Computer Program Using Strength Data from Laboratory Tests • Site-Specific Seismicity Investigations and Standard Pseudo-Static Displacement Analyses • Different Settlement at Subsurface (Bear Canyon Conglomerate Bedrock) Material • Manufacturer's Specifications
Leachate Vadose Monitoring System	• Geonet Closure Due to Weight of Landfill	• Compliance with Manufacturer's Specifications
Cover Systems	• Static Stability • Earthquake Stability • Long-Term Infiltration Potential • Induced Stresses and Strains Due to Landfill Settlement	• Empirical Laboratory Test Comparisons • Standard Static Slope Stability Computer Program Using Strength Data from Laboratory Tests • Site-Specific Seismicity Investigations and Standard Pseudo-Static Displacement Analyses • Different Settlement at Subsurface (Bear Canyon Conglomerate Bedrock) Material • Manufacturer's Specifications • EPA's HELP Model Using Regional and Site Rainfall Data • Settlement Estimates Based on Elastic Properties of Biodegradation Estimates for MSW Residue

Response to Comment No. 110 (Cont'd)

active, the area containing the site is stable. This is because the types of earth movements that cause high stress and earthquake conditions in much of southern California do not occur east of the Algodones Sandhills (four to five miles west of the site).

Because active faults are not near the proposed landfill, the seismicity study shows that the maximum potential horizontal acceleration for slope stability design is approximately 0.2 G. This value is less than half of the value which could occur at most landfills in areas with the potential for nearby earthquakes (e.g., the Los Angeles Basin).

In part because of the desire to make the landfill look like a natural hill as opposed to a manmade structure, the sideslopes are relatively gentle, varying from about 3.5:1 at the bottom to 5.5:1 at the top. The resulting overall slope angle is substantially shallower than the 3:1 slope for which the state regulations (CCR Title 14) require stability analyses to be performed. However, because of the facility's size and liner interface considerations, a full range of stability calculations are being prepared for the Waste Discharge Requirement and Solid Waste Facilities Permit applications. These applications will be available for public review when they are accepted by the RWQCB. These calculations will be used to specify materials that would result in: (1) a minimum static factor of safety of 1.5 against failure; and (2) maximum permanent displacements of less than 6 inches for design earthquake loading conditions. Displacements of less than 6 inches are considered to be acceptable to avoid distress to liner system components based upon a state-of-the-art survey of landfill designers conducted by Seed and Bonaparte (1992).

The stability calculations being performed for permitting consider the strengths of: (1) the material interfaces; (2) the waste; and (3) clay components of the liner; both as they are initially constructed and after consolidation of the clay (due to loading) occurs.

The potential for deformation of the landfill base is an important consideration because large displacements can cause stresses in FML materials, which ultimately could result in cracking, especially at construction seams. The Mesquite Regional Landfill site is underlain by consolidated bedrock that has very low settlement characteristics (e.g.,

Response to Comment No. 110 (Cont'd)

compared to thick soils). Calculations being developed for the Waste Discharge Requirement and Solid Waste Facilities Permits confirm that settlement of the bedrock would be small, and would not result in stresses and strains that could adversely affect FML material performance.

The FML liner on top of the proposed liner system would be protected against penetrations from the overlying LCRS gravel and weight of the landfill through the use of a geotextile "cushion." This same process has been used at the Mesquite Mine since 1985 to protect a thinner FML liner from being penetrated by crushed ore at leach pads. The specifications for the geotextile would be developed using large-diameter tests to simulate the landfill weight using samples of the actual FML, LCRS gravel and clay to be installed.

Construction Procedures And Controls

Several commentors request additional detail about how construction quality control would be carried out, primarily with respect to the three component composite low-permeability liner system. Procedures to be used for that activity are summarized in this section.

Continuous inspection and quality control testing would be provided for liner construction activities by a third-party organization qualified for this type of work. The third-party status would assure that the organization has no financial ties to Arid Operations Inc. or the contractor hired to construct the liner. It is anticipated that the RWQCB would also provide an additional independent construction quality control monitor at any time it determines it is appropriate to assure that liner construction complies with design specifications.

Tests would be performed on FML components prior to installation to assure that the FML materials have required properties based on the resins used and the fabrication processes. Manufacturers would be required to submit quality test reports and specifications for the FMLs to the Applicant and the LEA. Conformance tests would be performed to assure compliance with specifications that would be established for parameters such as thickness, density, tear strength, puncture resistance, and low-temperature brittleness. Field inspections and testing would be performed to assure installations are performed properly. Visual

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

inspections would be performed to detect any damage to the FML. Quality control testing for field seaming would be completed, and field repair procedures would be adopted to correct any inadequacies discovered during inspections. All inspections would be conducted by an independent third party and overseen by the LEA. This degree of emphasis is placed on quality assurance requirements to avoid difficulties with FML seaming that were sometimes realized in years past, before seaming techniques became more sophisticated. Seaming technology has advanced significantly in the past several years to minimize the potential for defects to occur or go unnoticed during the construction quality assurance (CQA) process.

Specifications for soil portions of the design, including the clay portion of the proposed liner would also be developed, similar to the level of detail described above for FMLs. Specific clay material requirements would be identified.. Procedures for placement and testing of the clay moisture would be developed. Also in order to prevent desiccation, the clay would be maintained moist and/or temporarily covered until the top FML is placed. Repair procedures would be identified for surface desiccation cracks in the event they occur prior to placement of the top FML.

Monitoring System Spacing

Several commentors question the number and spacing of ground water and vadose zone gas monitoring wells. It appears that these comments may have been the result of misinterpretations of the monitoring system description in figures provided in the Draft EIS/EIR. Additional descriptions of these systems are provided in the LFG and Vadose Leachate Monitoring sections of this response. Information regarding the basis of the spacings are described in the following paragraphs.

The spacing of ground water wells along the west and south, downgradient sides of the landfill is based upon placing them close enough so that any release into ground water would be intercepted by a well. The minimum spacing is determined by the "radius of spreading" that could be expected to occur as hypothesized slow seepage from a localized point would migrate down through the vadose zone. In the Bear Canyon Conglomerate, the estimated spreading angle is 45 degrees, considering the existence of numerous clayey zones (EIS/EIR Section 3.1.1) that would cause the

Response to Comment No. 110 (Cont'd)

seeping water to spread laterally as it would slowly migrate downward. Large exposures of this material at the adjacent mine confirm its layered stratigraphy and the lack of any potential preferred downward pathways. Spreading in the basement rock is assumed to occur at varying angles that correspond to the anticipated dips of fractured zones in that material.

Based on the above considerations, it is anticipated that at least two ground water monitoring wells would be required for the first segment in the southwest corner of the landfill. The existing well LGW-1 in the southwest corner would be one of these wells. The other well would be located at approximately the two-thirds point along the west boundary of this segment, although its final location would be determined by initially drilling several holes in order to locate a zone with some ground water in fractures. For subsequent west and south (downgradient) perimeter segments, an additional well for each segment would be adequate. With this distribution, there eventually would be 15 downgradient monitoring wells, generally spread at about 1,500-foot centers as the landfill reaches its full development size.

One comment questions why the vadose zone gas monitoring wells shown in Draft EIS/EIR Figure 2-21 are spread at 1,000-feet centers. This comment could be the result of confusion between the perimeter vadose gas monitoring wells and the vadose wells underneath each segment. The figure shows the vadose monitoring wells to be spaced at 300-foot centers. This spacing is based upon providing 25 wells per segment, or one well per every 2 acres of landfill. This density of wells would provide monitoring coverage for a high portion of the segment area with very low potential for migrating LFG or volatile organics from leachate to go undetected. If it is eventually determined by the RWQCB that a similar density of vadose zone gas monitoring wells are required for all landfill segments, more than 1,000 monitoring locations in the vadose zone would ultimately be provided. Only one perimeter vadose gas well is shown in Figure 2-21 of the Draft EIS/EIR. These wells would be spaced at 1,000-foot intervals around the landfill perimeter in accordance with state regulations as discussed in the LFG Migration Monitoring section of this response.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

Minimization of Leachate

Several of the comments are related to the extent of leachate generation that can be expected for the proposed Mesquite Regional Landfill. Identified liquids would not be accepted for disposal at the landfill. Also, the MSW residue would have been handled at material recovery facilities so that liquid containers and much of the moist green wastes[3] will have been removed. Finally, the material would be transported to the landfill face in covered containers. As a result of these conditions and the high evaporation characteristics of the site, the MSW residue is expected to be relatively dry, with minimal potential to create leachate. Nevertheless, as described in the LCRS section of this response, the LCRS for the Mesquite Regional Landfill is designed to handle a 100-year, 24-hour storm event during placement of the first lift of MSW residue at any segment. The following discussion summarizes why long-term leachate generation is not anticipated.

The primary potential source of leachate for the proposed landfill would be rainfall infiltration. To evaluate this potential, the amount of rainfall infiltration that may occur for the various temporary and permanent cover materials and systems was performed using the EPA's HELP model. Preliminary HELP model analyses were included in Appendix B of this EIS/EIR. Additional analyses prepared for the Waste Discharge Requirement and Solid Waste Facilities Permits are included as Appendix 1.

The HELP model analyses consider that the site is in an arid environment with an average annual rainfall of only about three to four inches and an evaporation rate on the order of 100 inches. However, to reflect higher than normal rainfall conditions, the analyses also consider what would occur for years with as much as 10 inches of rainfall.

The following Response Table 12 summarizes the results of the infiltration studies performed for daily, intermediate, and final cover materials planned for the Mesquite Regional Landfill. Worst case (assuming 10 inches of rainfall) and normal (assuming three to four inches of rainfall) infiltration calculations are provided. As shown,

(3) Note that very small amounts of agricultural material plant diverted from burning in Imperial County could be landfilled. The moisture added by this small amount of plant agricultural material would be small.

Response to Comment No. 110 (Cont'd)

RESPONSE TABLE 12

INFILTRATION RATES

COVER AS DESCRIBED (inches)	TIME PERIOD (rain seasons)	WORST-CASE INFILTRATION RATE (gal/ac/day)	NORMAL INFILTRATION RATE (gal/ac/day)
Daily Cover • 6 Inches	1	0.3	0.1
Temporary Intermediate Cover • 12 Inches	1	0.2	0.1
Long-Term Intermediate Cover • 24 Inches	9	0.1	0.1
Final Top Cover • 24-Inch Foundation Layer - FML - 24-Inch Top Layer	130	≈ 0	≈ 0
Final Side Cover • 84-Inch Side Berm	130	0.3	0.1

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 110 (Cont'd)

infiltration rates are expected to be very low for each thickness of cover. This is consistent with permeability tests performed on the Mesquite Mine ore residue and overburden materials, which indicated hydraulic conductivities in the range of 10^{-5} to 10^{-6} cm/sec. The estimated normal infiltration rates (0.1 gal/ac/day) shown for each cover thickness are so low they would be expected to be absorbed in approximately the top few inches of MSW residue, with no potential for leachate generation. Far greater amounts of liquids would be naturally removed from the landfill in the form of condensate within the recovered LFG.

These low infiltration rates, even for daily cover, mean that the only scenario where significant leachate would be generated is during the period prior to completion of the first lift (10 feet) of MSW residue in any segment. If a rain event were to occur during that condition, it would enter the LCRS directly after possibly being exposed to the small, open MSW residue working face. Once the first 10-foot lift is completed in a segment, however, only small amounts of any rain event would penetrate daily cover as described above, which would easily be absorbed by MSW residue. As successive lifts and layers of daily and possibly intermediate cover are added to each segment, the potential for precipitation to percolate through these low-permeability layers to the bottom of the landfill to form leachate is insignificant.

Once final cover has been placed over a given segment area, formation of leachate would only occur if a rain event percolated through the final cover, through several layers of MSW residue and several layers of daily and intermediate cover. The infiltration estimates shown in Response Table 12 and Appendix 1 indicate that this would not occur. For these reasons, the potential for sustained leachate flow is anticipated to be essentially zero. Nevertheless, the LCRS and low-permeability liner systems are designed to equal or exceed those that would be lawfully required for sites with the disposal of much wetter waste or higher rainfall conditions.

release from these tanks?

111 8. In section 2.1.7.1, page 2-52 to 2-54, how does the applicant intend to transport any leachate collected from the secondary LCRS to the proposed water reclamation facility?

112 9. In section 2.1.7.2, is 50 feet not too much for the proper early detection of LFG leakage from the base liner? Also, does the 4 gas pressure sensors mentioned in the section relate to a segment or to the entire landfill?

113 10. In section 2.1.17, page 2-73, the 30-year post-closure maintenance period proposed by the applicant is considered only appropriate for normal landfills that have operating life of about 30 years. However, the Mesquite Regional landfill could operate for 100 years. Hence an appropriate post-closure maintenance period will be 100 years.

114 11. The last two lines of the first paragraph and the last two paragraphs of section 2.1.18 have been repeated.

115 12. What are the details of the optional energy recovery facilities referred to in section 4.1.2? These details are vital to the determination of what impact the facilities would have on water resources.

116 13. It is not correct to assure that leachate will not be produced from the landfill (page 4-9) irrespective of the arid condition of the site.

117 14. LFG monitoring systems required by the RWQCB are not redundant as stated on page 4-11. These systems are necessary to protect groundwater in the Amos-Ogilby hydrologic basin. Hence, the word "redundant" should be deleted from page 4-11.

If you have any questions concerning these comments, please contact Mr. Robert Perdue at (610) 776-8938 or Mr. Chris Igbinedion at (619) 776-8968.

Robert Perdue

ROBERT PERDUE
Senior Engr. Geol.

CI/jr

File ref:

RESPONSE TO COMMENT LETTER RECEIVED FROM THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, COLORADO RIVER BASIN, REGION 7 (CONTINUED)

Response to Comment No. 111

Please see response to Comment No. 110.

Response to Comment No. 112

Please see response to Comment No. 110.

Response to Comment No. 113

Comment noted. This EIS/EIR identifies the post-closure care period specified in landfill regulations. It is recognized that longer post closure care periods may be required.

Response to Comment No. 114

This typographical error has been corrected in this Final EIS/EIR.

Response to Comment No. 115

Only conceptual information is available for the optional energy recovery facilities because the specific method cannot be determined at this time. Please see response to Comment No. 410 for a further discussion of energy recovery facilities.

Response to Comment No. 116

Please see response to Comment No. 110.

Response to Comment No. 117

The requested change has been made in this Final EIS/EIR.

Mesquite
Landfill

South Coast
AIR QUALITY MANAGEMENT DISTRICT
21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (909) 396-2000

RECEIVED
EL CENTRO RESOURCE AREA
EL CENTRO, CA.

April 28, 1994

Mr. Jurg Heuberger
Bureau of Land Management
1661 S. 4th Street
El Centro, CA 92243

Dear Mr. Heuberger:

Subject: **Environmental Impact Report for the Proposed Mesquite Regional Landfill Project**

SCAQMD# ODP940408-01

118 As a responsible agency, the South Coast Air Quality Management District (SCAQMD) reviews and analyzes environmental documents for projects that may generate significant adverse air quality impacts or are regionally significant. The SCAQMD is also responsible for advising lead agencies in addressing and mitigating potential adverse air quality impacts caused by projects (Health and Safety Code Section 40412).

Utilizing the information in the SCAQMD April 1993 CEQA Air Quality Handbook (CEQA Handbook) will assist you in your discussions with local decision makers and ensure that you have adequately addressed the potential air quality impacts of your project. The CEQA Handbook will be updated periodically, to assist your staff in evaluating air quality impacts using the most current information available relative to air quality impacts.

The SCAQMD staff is available to answer any questions you may have regarding the use of the CEQA Handbook. Please feel free to contact me at (909) 396-3054 or Shalini George at (909) 396-3090.

Sincerely,

Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Local Government -CEQA

SS:SG

(EIRND)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, SIGNED BY STEVE SMITH, PH.D., PROGRAM SUPERVISOR, LOCAL GOVERNMENT-CEQA, DATED APRIL 28, 1994

Response to Comment No. 118

Comment noted.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS
818 West Seventh Street,12th Floor • Los Angeles, California 90017-3435 | (213) 236-1800 • FAX (213) 236-1825

July 7, 1994

Mr. G. Ben Koski, Area Manager
Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Dear Mr. Koski:

Subject: Comments on the Draft EIS/EIR for the Proposed Mesquite Regional Landfill-SCAG No. I 9400170

Thank you for the opportunity to review and comment on the Draft EIS/EIR for the Proposed Mesquite Regional Landfill. As areawide clearinghouse for regionally significant projects, SCAG assists cities, counties and other agencies to review projects and plans for consistency with regional plans.

The attached comments are meant to provide guidance for considering the proposed project within the context of our regional goals and policies which are based in part upon state and federal mandates. If you have any questions about these comments, please contact Glenn Blossom (213) 236-1876.

Sincerely,

Eric Roth

Eric Roth, Manager
Intergovernmental Review
ER:GB

Gaddi Vasquez Orange County-President, Stella Mendoza City of Brawley-First Vice President, Ed Edelman Los Angeles County-Second Vice President, John Longville City of Rialto-Past President • Richard Alarcon City of Los Angeles, Richard Alatorre City of Los Angeles, Robert Hartlett City of Monrovia, George Bass City of Bell, Ron Bates City of Los Alamitos, George Battey, Jr. City of Burbank, Hal Bernson City of Los Angeles Walter Bowman City of Cypress, Marvin Braude City of Los Angeles, Susan Brooks City of Rancho Palos Verdes, Art Brown City of Buena Park, Yvonne Braithwaite-Burke Los Angeles County, Jim Busby, Jr. City of Victorville, Bob Buster Riverside County, Laura Chick City of Los Angeles, John Cox City of Newport Beach, Cynthia Crothers City of Moreno Valley, Elmer Dignen City of Loma Linda, Richard Dixon City of Lake Forest, Doug Drummond City of Long Beach, Jerry Eaves San Bernardino County, John Ferraro City of Los Angeles, John Flynn Ventura County, Terry Frizzel City of Riverside, Ruth Galanter City of Los Angeles, Sandra Genis City of Costa Mesa, Jackie Goldberg City of Los Angeles, Candace Haggard City of San Clemente, Garland Hardeman City of Inglewood, Robert Hargrave City of Lomita, Mike Hernandez City of Los Angeles, Nate Holden City of Los Angeles, Robert Jamison City of Artesia, Jeff Kellogg City of Long Beach, Jim Kelly City of South El Monte, Richard Kelly City of Palm Desert, Bob Kuhn City of Glendora, Abbe Land City of West Hollywood, John Melton City of Santa Paula, Barbara Messina City of Alhambra, Judy Mikels City of Simi Valley, David Myers City of Palmdale, Kathryn Nack City of Pasadena, Bev Perry City of Brea, Gwenn Norton-Perry City of Chino Hills, Ron Parks City of Temecula, Irv Pickler City of Anaheim, Michael Plisky City of Oxnard, Beatrice Proo City of Pico Rivera, Larry Rhinehart City of Montclair, Dick Riordan City of Los Angeles, Mark Ridley-Thomas City of Los Angeles, Albert Robles City of South Gate, Sam Sharp Imperial County, Rudy Svorinich City of Los Angeles, Bob Stone City of Bellflower, Tom Sykes City of Walnut, Jeff Thomas City of Tustin, Laurie Tully-Payne City of Highland, Joel Wachs City of Los Angeles, Rita Walters City of Los Angeles, Judy Wright City of Claremont, Zev Yaroslavsky City of Los Angeles •

Comments on the Draft EIS/EIR for the Proposed Mesquite Regional Landfill in the County of Imperial

PROJECT DESCRIPTION

The proposed landfill would be located in eastern Imperial County, primarily on and adjacent to the site of the existing Mesquite Gold Mine and Ore Processing Facility. The project area covers approximately 4,245 acres with the actual landfill footprint covering 2,290 acres. Approximately 1,750 acres of the proposed landfill site are federally owned and managed by the Bureau of Land Management. The proposed landfill could accommodate up to 600 million tons of Municipal Solid Waste (MSW) residue and is expected to have an operational life of 100 years.

MSW would be collected from population centers in Southern California by local collection vehicles and taken to existing or future transfer stations/material recovery facilities where it would be sorted and processed to remove recyclables, hazardous materials, and other unacceptable wastes. Initially, it is expected that the resulting MSW residue would be loaded into containers and would be transported to Southern Pacific Transportation Company's (SP) existing City of Industry intermodal facility. In later years, MSW residue train loading may be moved to the Los Angeles Transportation Center intermodal facilities or to any new intermodals that may be built in the region in the future. From these intermodals, MSW residue would be hailed to the Mesquite Regional Landfill by railroad. The proposed landfill would also accept MSW residue delivered by train or transfer truck if Imperial County desires to have locally derived wastes deposited at the landfill.

The project would include a four- to five-mile railroad spur that would extend from the existing SP Main Line track to the landfill site. The MSW would be transported via the existing SP Main Line track and the proposed rail spur.

The estimated daily MSW residue volumes that would be accepted at the proposed landfill would be 4,000 tons per day (tpd) for Year 1 of operations, increasing up to 20,000 tpd after Year 7. The estimated daily number of trains that would be required would be one train during Year 1 increasing to 5 trains after Year 7. The proposed maximum daily volume of MSW residue would be 20,000 tpd averaged over a two week, 12 day period. Typical trains would be up to 4,600 feet long; however, one mile long trains may be used on occasion.

The applicant proposes a land exchange for the surface and subsurface rights on the 1,750 acres of federal land within the proposed project boundary. These offered lands consist of 2,242 acres of private property containing desirable quality wildlife habitat on the Chuckwalla Bench and

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high quality scenic resources in the Santa Rosa Mountains Natural Scenic Area.

An estimated total of 268 long-term operations-related direct jobs would be created by the project.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN POLICIES

119 The Growth Management Chapter (GMC) of the recently adopted Regional Comprehensive Plan contains a number of policies that are particularly applicable to this program. The following are selected growth management policies of the GMC in italics and SCAG staff comments regarding the consistency of the program with those policies:

- *The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.*

  SCAG Staff Comments: Many recent studies of solid waste management issues have concluded that landfill capacity in the Southern California area has been and continues to be a critical issue for local government. Consequently, the provision of the proposed landfill can be considered as an action that will help to provide cities and counties in the region with long term landfill disposal options. This would be consistent with the objectives of the GMC to guide growth in the region and mitigate its negative impacts.

- *To support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services .....*

  SCAG Staff Comments: Solid waste disposal is a public service that is essential to a well-functioning, sustainable community or region. The proposed landfill is one component of a complex system that will provide this much-needed public service.

- *To encourage mitigation measures aimed at preservation of biological and ecological resources.....*

  SCAG Staff Comments: The Draft EIR for the project contains a thorough analysis of the impact of the project on biological and ecological resources and presents a full slate of mitigation measures which appear to be adequate to protect these resources, provided such measures are adopted as conditions of project approval.

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS, SIGNED BY ERIC ROTH, MANAGER, INTERGOVERNMENTAL REVIEW, DATED JULY 7, 1994.

Response to Comment No. 119

Comment noted.

120 REGIONAL COMPREHENSIVE PLAN EIR

The EIR for the recently adopted Regional Comprehensive Plan indicates that implementation of the policies of the Growth Management chapter and compliance with the applicable provisions of the county's integrated waste management to achieve the goals of AB 939 should adequately mitigate any adverse impacts created by projects such as this.

121 SCAG's WASTE-BY-RAIL REPORT

In April, 1988, SCAG issued a report titled *The Feasibility of Hauling Solid Waste by Railroad from the San Gabriel Valley to Remote Disposal Sites* (Waste-by-Rail). This report contains several recommendations and technical findings that relate to the Mesquite Regional Landfill proposal. Among the most relevant of these are:

- Transportation of solid waste by railroad is technically feasible and offers the San Gabriel Valley a potential solution to the solid waste disposal crisis projected for the 1990's.
- The political feasibility of waste-by-rail is by no means assured. Elected officials from areas proposed for the disposal of Los Angeles area waste are at best neutral on the subject.
- Potential disposal sites have been identified in Riverside, Imperial, San Bernardino and Kern counties.
- A waste-by rail system will require complex business and political agreements. Philosophically, there would be nothing wrong with an environmentally sound project, a long-term business arrangement, and a political agreement that is acceptable to all parties. Waste-by-rail can be implemented if and only if a "win-win" arrangement is negotiated.
- The current crisis in solid waste management is primarily due to citizen opposition to both the continued use of landfills and the siting of waste-to-energy facilities in heavily urbanized areas.
- Solid waste trains would operate at night, thus impacts of the trains on grade crossing delays would be minimal.
- Rail equipment for transport of municipal wastes must provide complete enclosure of the wastes, to prevent blowing and dusting problems, escape of odors, or leaking of liquid

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (CONTINUED)

Response to Comment No. 120

Comment noted.

Response to Comment No. 121

Comment noted. The report mentioned in this comment was considered in preparing this EIS/EIR (Section 1.5.4). There is no requirement that the trains hauling MSW residue to the proposed landfill only operate at night.

wastes.

122 REFERENCES IN THE DRAFT EIR TO SCAG REPORTS AND REGIONAL POLICIES

The Draft EIR for the proposed project makes reference to SCAG reports or policies in four parts of the document.

P. 1-18 **Relationship to Other Governmental Policies, Plans and Programs - Southern California Association of Governments.** The Draft EIR indicates that SCAG's growth management, mobility and air quality management plans were considered in the analysis of this project. Reference is also made to the Regional Comprehensive Plan which was under preparation at the time the Draft EIR was prepared.

P. 3-72 **Rail-Haul Route.** In this section, reference is made to the study published by SCAG on rail-haul[1] that the authors of the Draft EIR consulted in evaluating the delays at the crossings along the rail haul route.

P. 4-85 **Environmental Consequences - Air Quality - MSW Residue Transportation-Related Impacts.** Another reference to the study published by SCAG[2] which was consulted by the authors of the Draft EIR in estimating transport-related emissions caused by the project.

P. 5-3 **Relationship Between the Local Short-Term Use of the Environment and the Enhancement of the Long-Term Productivity.** The Draft EIR states that development of MSW repositories, such as the proposed project, that minimize environmental impacts is in the long-term interest of Southern California. The development of such repositories, would meet the goals set forth by SCAG, the Bureau of Land Management, and Imperial County regarding the productive and environmentally sensitive use of land resources and environmentaliy safe land disposal of MSW residue.

123 CONCLUSIONS

This project can be implemented as a project that provides cities and counties in the region with

[1] SCAG, *The Feasibility of Hauling Solid Waste by Railroad from the San Gabriel Valley to Remote Disposal Sites*, April, 1988.

[2] *Op. cit.*

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (CONTINUED)

Response to Comment No. 122

Comment noted. As noted in this comment, this EIS/EIR incorporated data and information compiled by SCAG and considered the conformity of the proposed project with SCAG policies, plans and programs. This EIS/EIR found that the proposed project would meet the goals set forth by SCAG, BLM, and Imperial County regarding the productive and environmentally sensitive use of land resources and environmentally safe land disposal of MSW residue.

Response to Comment No. 123

Comment noted.

much-needed, long-term landfill disposal options that are acceptable to all parties provided that open communication is maintained with all of the affected interests. This should include the local jurisdictions bordering the railroad route(s) and the emergency truck haul route(s). Documentation of such communication efforts should be included in the EIR or elsewhere in the public record.

All mitigation measures associated with the project should be monitored in accordance with AB 3180 requirements and reported to SCAG through the Annual Reasonable Further Progress Reports.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

July 6, 1994

G. Ben Koski, Area Manager
El Centro Resource Area
Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243-4561

Dear Mr. Koski:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the **Mesquite Regional Landfill, Imperial County, California.** Our comments on this DEIS are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR Parts 1500-1508, and §309 of the Clean Air Act.

The DEIS evaluates alternatives for a municipal solid waste landfill to serve southern California. The project applicant proposes to exchange 2,242 acres of private land for 1,750 acres of federal land adjacent to the existing Mesquite Gold Mine for the purpose of operating a 20,000 ton-per-day municipal solid waste landfill over a period of approximately 100 years. The entire project area would cover approximately 4,245 acres, and the landfill footprint would cover 2,290 acres. The proposal also includes construction and operation of a five-mile railroad spur to the landfill site. Cyanide heap leached material from the existing and future Mesquite Gold Mine operation is proposed for daily cover at the landfill. Alternatives to the proposed action include (1) Smaller Landfill Footprint, (2) Reduced Daily Volumes, (3) Alternative Landfill Site, (4) Larger Project, and (5) No Action.

124 We have rated this DEIS as EO-2 -- Environmental Objections-Insufficient Information (see enclosed "Summary of Rating Definitions and Follow-Up Action"). Our rating reflects our objections to the project as proposed based on its potential impacts to health and safety and water quality. In addition, our rating reflects the need for further information in the Final Environmental Impact Statement (FEIS) regarding the fate of cyanide and metals in the mined heap leach material proposed for use as landfill daily cover; monitoring and mitigation measures to ensure protection of human health and safety and water

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX, SIGNED BY JACQUELINE WYLAND, CHIEF, OFFICE OF FEDERAL ACTIVITIES, DATED JULY 6, 1994.

Response to Comment No. 124

The additional information requested is provided in the specific responses to individual comments that follow. Impacts to water quality and human health and public safety would not be significant.

quality; and other hydrogeologic information. Our specific comments are enclosed.

We appreciate the opportunity to review this DEIS. Please send a copy of the FEIS to this office when it is officially filed with our Washington, D.C., office. If you have any questions, please call me at (415) 744-1584, or have your staff call Jeanne Geselbracht at (415) 744-1576.

Sincerely,

Jacqueline Wyland, Chief
Office of Federal Activities

001620/94-115

Enclosures

cc: Robert Perdue, RWQCB-Colorado River Region
Scott Walker, California Integrated Waste Mgmt. Board

General Comments

125 Based on the DEIS and the Hydrogeology Technical Report (Appendix B), the proposed project site appears to satisfy the siting criteria for municipal solid waste landfills pursuant to 40 CFR Part 258. In addition, we believe it will be possible to design an effective montitoring system for the landfill. Nonetheless, we do have some comments regarding aquifer recharge, groundwater flow, and monitoring system design (see below).

126 Our objections to the project as proposed, however, are based on the potential impacts of using heap leach material as daily cover for the landfill. The DEIS does not provide sufficient information regarding the chemical composition, acid potential, sampling protocols, or effective treatment/neutralization of the heap leach material, or mitigation measures to ensure that human health and safety and water quality would be protected. Additional information is needed in the FEIS regarding these issues.

Cyanide Leach Heaps/Daily Cover

127 EPA has questions regarding the criteria proposed to determine whether the heap leach material is "clean." According to the DEIS (p. 1-8), free cyanide residue would be measured to determine whether the heap has been adequately rinsed. However, free cyanide is very difficult to measure. Results are often unreliable, inaccurate, and difficult to duplicate. Measuring weak acid dissociable cyanide may be more relevant from an environmental standpoint. Furthermore, the existing permit specifying rinsing criteria for heaps was issued by the California Regional Water Quality Control Board (RWQCB) apparently for the sole purpose of closing and reclaiming the heaps, not for the purpose of reusing heap materials for daily landfill cover. We recommend that BLM consult with the RWQCB to determine the appropriate sampling protocol and standards that would need to be met for "clean" daily cover.

128 After neutralization/treatment of leach heaps has been conducted and effluent standards have been met, subsequent testing of heaps often reveals increased concentrations of cyanide and other constituents caused by snowmelt or periods of rain. We recommend that, after neutralization/detoxification standards have been met, subsequent sampling of the heaps be conducted following periods of rain before the heap material is deemed "clean" for the purposes of use as daily cover at the landfill. The FEIS should specify what components of the heaps would be sampled (e.g., solids, liquids), how they would be sampled, what form of

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 125

Comment noted.

Response to Comment No. 126

The additional information requested is provided in the specific responses to individual comments that follow. Impacts to water quality and human health and public safety would not be significant.

Response to Comment No. 127

Comment noted.

Response to Comment No. 128

Please see response to Comment No. 2. The future testing procedures for use of heap leach materials will be established by the RWQCB as part of the development of its WDR.

cyanide and what other constituents would be analyzed, when heaps would be sampled, and the standards that would need to be met.

129 It is unclear how a 200-feet-high leach heap would be effectively rinsed. Incomplete neutralization or treatment of cyanide in heaps can be caused by blind-offs, less permeable lenses or isolated areas of a heap, which affect percolation and fluid flow through the heap. Research suggests that preferential flow paths and blind-offs increase with time and volume of liquid. The relatively fine particle size of the heap leach material at the Mesquite Mine will probably require a long rinsing period. Preferential flow paths can limit the effectiveness of treatment and may leave pockets of contaminants behind in the heap. In addition, closed leach heaps can experience critical conditions if the pH is not maintained at 11 or 12. Even at pH levels of 7.5 to 8.5, conditions can be sufficiently acidic to generate hydrogen cyanide gas. Pockets of unrinsed cyanide would be vulnerable to such a reaction.

130 Furthermore, it is unclear from the DEIS whether the heap leach material would be potentially acid generating. If the material would be acid generating, we believe it may not be appropriate for daily cover. In addition, landfill conditioning could further exacerbate acid generation. Depending on the type of ore body from which the leach heap material is produced (e.g., a sulfide ore body), metals could be mobilized from the daily cover via acid drainage. The FEIS should provide data indicating the acid potential/neutralization potential of the heap leach material. If static tests indicate acid potential, kinetic testing should be conducted. The FEIS should include a detailed discussion of the potential transport and fate of metals in the heap leach material if it is used as daily cover and all necessary monitoring and mitigation measures to ensure protection of groundwater and surface water quality at the landfill site.

131 These issues raise the following objections: (1) the potential threat to the health and safety of the dozer operator from cyanide-laced particulates or gas as he/she transfers material
132 from the heaps to the landfill; (2) the potential formation of hydrogen cyanide gas within the landfill where cyanide in the cover material and organic acids from the landfill or acid
133 drainage from the heap leach material occur together; and (3) the potential for other constituents such as metals found in blind-offs to contaminate the landfill. The FEIS should include an analysis of the fate of cyanide and cyanide-metal complexes in the heaps and the landfill and discuss precautions/mitigation measures that would be required to prevent threats to health and safety and environmental resources. Applicable Federal and California Occupational Safety and Health Administration

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 129

Please see response to Comment No. 2.

Response to Comment No. 130

Please see response to Comment No. 2.

Response to Comment No. 131

Please see response to Comment No. 2.

Response to Comment No. 132

Please see response to Comment No. 2.

Response to Comment No. 133

Please see response to Comment No. 2.

regulations and Mine Safety and Health Administration regulations should be identified and discussed in the FEIS.

134 The existing and future leach pads are located within the footprint of the proposed landfill. The FEIS should indicate how leach pads would be closed and disposed of prior to grading for placement of the landfill liner.

Water Quality/Quantity

135 According to the DEIS, the project proponent wishes to condition the landfill with additional water to generate higher concentrations of landfill gas. However, the DEIS provides very little information on this proposal. We understand that if the State of California permits the proposal, further environmental analysis would be required. Finding the water budget which prevents creation of leachate while optimizing landfill gas generation would be critical in the pilot study. The FEIS should discuss this proposal and the potential pilot studies further.

136 According to the DEIS (p. 4-9), "contaminant constituents in the seepage water would be naturally degraded and attenuated" after 1,000 years. This would not be the case for metals. This statement should be accurately revised in the FEIS.

The following comments regard Appendix B: Hydrogeology Technical Report.

137 Section 2.2.4 Monitoring Systems, page 2-5: General descriptions for vadose zone monitoring wells and perimeter monitoring probes are provided in this section, and construction details are shown on Figure 2.7. The rationale which will be used to locate the well screens should be clearly stated in the text.

138 Section 4.0 Climatic Conditions, No. 2: This section gives the average annual rainfall. The average monthly rainfall should also be provided, preferably in bar graph form.

139 Section 4.0 Climatic Conditions, No. 3: This section describes evaporation rates for the area and soil moisture contents from borings in the site area. The months during which the soil moisture contents were measured should be stated in the text since the reference cited for this information is not included with this appendix. In addition, the moisture content of the heap leach materials to be used for daily cover should be indicated.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 134

Please see response to Comment No. 2.

Response to Comment No. 135

The LFG generation enhancement pilot program is described in Section 2.1.6.1 of the Draft EIS/EIR and its potential impacts are analyzed. The general approach and anticipated parameters for the pilot program are presented. Environmental control and monitoring systems that would be used for the pilot program are also described. The Draft EIS/EIR concludes that the pilot program would not result in a significant impact on the environment. The RWQCB has asked that a separate permit application be filed seeking approval for the pilot program after commencement of normal landfilling activities. Through this separate permit process, further pilot program procedural details will be closely scrutinized by the RWQCB, CIWMB and the LEA, and future environmental review would be required.

Full-scale implementation of a LFG enhancement program would require future environmental analysis (see Table 1-3 of the Draft EIS/EIR), including another separate permitting process. A detailed description of the full-scale program would be provided at that time.

Response to Comment No. 136

INTRODUCTION

This is the first of a number of comments that address various aspects of the hydrogeology and water quality of the subbasin that underlies the proposed landfill site, and the potential for ground water contamination if leachate were to be formed in the landfill and leak through the proposed liner. The subbasin characteristics are described in Sections 3.1.2.2 and 4.1.2.2 and Appendix B of the Draft EIS/EIR. There is no new data provided by the comments or from any other sources which indicate that those descriptions are not accurate. However, in an effort to provide one single, integrated description, this discussion has been developed in response to each of the subbasin-related comments. For that reason, the response goes well beyond the scope of what is asked in this comment.

Response to Comment No. 136 (Cont'd)

As appropriate, portions of the Draft EIS/EIR text are repeated here to create a single, integrated discussion.

As described in Appendix B of the Draft EIS/EIR, the hydrogeology of the area is well understood. An extensive amount of high quality data is available because of the subsurface exploration conducted for the existing Mesquite Mine. Exploration and mining activities have included drilling and logging of thousands of borings, and extensive geologic, geophysical, geotechnical and hydrologic studies conducted since the early 1980s. Characterizing the hydrologic conditions of the subbasin area was a major facet of the goals of these investigations because of its importance to permitting and to designing ground water protection aspects of mine facilities. The relationship between the subbasin and the main Amos/Ogilby alluvial ground water basin to the south was also an important aspect of these investigations because of the mine's need for a dependable water source. In addition, due to operations at the Mesquite Mine, a decade of continuous ground water monitoring data is available, and extensive exposures of subsurface conditions have been created by the mine pits allowing real-time observation of hydrologic properties for testing and refining of hydrogeologic models. Considerable regional data is also available from U.S. Geologic Survey hydrogeologic and geothermal studies, and from wells drilled in the region for private, commercial and government interests.

The extensive array of data from the Mesquite Mine and non-project-related sources presented in Sections 3.2 through 3.8 and 3.10 of Appendix B to the Draft EIS/EIR has been augmented by additional hydrogeologic and geotechnical studies conducted specifically for the proposed landfill (Section 3.9 in Appendix B to the Draft EIS/EIR) to close gaps in available data. Considering efforts for the mine and the landfill, the area is among the most extensively studied in the California desert on this subject.

The available information is considerably beyond the scope of that typically required for preliminary landfill engineering and to analyze potential environmental impacts of the landfill.

SUBBASIN CHARACTERISTICS

As discussed in detail in Section 3.1.2.2 and Appendix B of the Draft EIS/EIR, the proposed landfill site is located over a hydrologic subbasin

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 136 (Cont'd)

where low-permeability conglomerate bedrock (Bear Canyon Conglomerate) and low-permeability basement rock are present at shallow depths. The southern boundary of the subbasin is defined by a buried basement high "ridge" that separates the project area from the main Amos/Ogilby alluvial basin to the south. The depth to basement rock and geologic relationship between the subbasin and the main basin are shown in Figure 3-4 in the Draft EIS/EIR and Figure 3.6 in Appendix B to the Draft EIS/EIR.

Within the subbasin, alluvium is present only as a thin surficial veneer covering an eroded rock pediment of Bear Canyon Conglomerate and basement rock. The depth to the low-permeability conglomerate and basement rock varies from zero at outcrops to about 20 feet. The depth to ground water beneath the landfill footprint varies from about 140 feet to over 300 feet. Ground water occurs in the interstitial spaces of the conglomerate and in joints and fractures of the basement rock. Interconnection of the fractures within the basement rock results in flow that is very predictable, as evidenced by the uniform and predictable ground water gradient. The ground water gradient is from northeast to southwest (see Figure 3-14 of the Draft EIS/EIR and Figure 5.3 in Appendix B).

Ground water elevation data is comprehensive due to the extensive number and areal distribution of data points (see Figure 5.2 in Appendix B to the Draft EIS/EIR). The table of ground water elevation data provided in Appendix E to Appendix B shows ground water levels during drilling and after stabilization. About 70 percent of the 72 data points used to determine ground water contours in the subbasin were field checked long after drilling to assure that accurate static water levels were obtained. Those wells that were not used, generally were observed to be dry by the drillers. Water level data for all of the investigation points near the landfill, shown in Figure 3.2 of Appendix B to the Draft EIS/EIR, were not provided because many of those tests (e.g., vadose wells, test pits) did not extend to the depth of ground water.

Water level data from the Mesquite Mine monitoring wells is available for the period of time since 1985 and shows that fluctuation over time has been less than 2 feet. Generally, the change in depth has been within tenths of a foot. The ground water contours shown have been validated

Response to Comment No. 136 (Cont'd)

over time as new wells have been drilled in the area for the mine and for investigations related to the proposed landfill. When new holes have been drilled, water levels encountered have generally been within 10 feet of levels predicted based on contours developed from previous data points.

Within the subbasin, only minor amounts of water are present because of the low-permeability (hydraulic conductivity) of the Bear Canyon Conglomerate and basement rock. As discussed in Section 3.1.2.2 of the Draft EIS/EIR, the estimated magnitude of ground water flow under the entire landfill footprint is about 60 to 65 gpm, based on a flow rate of about 0.004 gpm per foot of width at the Big Chief Mine Pit. Appendix B of the Draft EIS/EIR describes the range of flow beneath the entire landfill to be on the order of only 50 to 100 gpm. This small amount of flow is derived by recharge from the Chocolate Mountains, north of the landfill. This represents a very small portion of the water stored in, and recharged to, the main Amos/Ogilby alluvial basin located a mile or more to the south of the proposed landfill as illustrated in Figure 5.1 of Appendix B and Figure 3-16 of the Draft EIS/EIR.

At the proposed landfill site, recharge from the surface is inhibited because there is not enough precipitation to cause the field moisture capacity of the vadose zone to be exceeded. The field moisture capacity is the depth at which downward percolation will occur. As discussed in the Aquifer Characteristics portion of Section 3.1.2.2 in the Draft EIS/EIR, the field moisture capacity has been estimated at about 10 to 15 percent and the in situ moisture content has been measured by Sergent, Hauskins and Beckwith (1984b)(1) to be much lower, varying from 1 to 3 percent near the ground surface to about 3 to 7 percent at a depth of 40 feet. On the infrequent occasions when precipitation occurs at the site, most is lost to surface runoff or immediately evaporated. The small amount of infiltration that occurs is absorbed by the dry soils, and then evaporated or transpired by vegetation. Because of the very low in situ moisture content in the vadose zone, no measurable recharge occurs locally. This condition is further illustrated by the lack of perched water being observed in the many borings drilled at the site. Perched conditions would

(1) Sergent, Hauskins and Beckwith. *Geotechnical Investigation Report, Mill Site Investigation, Mesquite Project, Imperial County, California; Technical Report* (unpublished), Job Number E84-80. Prepared for Gold Fields Operating Co. - Mesquite, June 12, 1984b.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 136 (Cont'd)

be expected if infiltration was significant because the layered, clayey zones in the Bear Canyon Conglomerate would act as confining layer. Bear Canyon Conglomerate characteristics are discussed in Sections 3.7 and 3.9.2 of Appendix B to the Draft EIS/EIR, and in the following section.

The few outcrops of basement rock in the project area are very small (i.e., up to a few tenths of an acre). The area of basement rock outcrop is too small to result in any measurable recharge.

HYDRAULIC CONDUCTIVITY

Considerable data is available on the permeability of both the Bear Canyon Conglomerate and the basement rock units within the subbasin, as described in Sections 3.7 and 5.4.2 of Appendix B to the Draft EIS/EIR and the Aquifer Characteristics portion of Section 3.1.2.2 of the Draft EIS/EIR. These data include information from: (1) pumping tests conducted on monitoring wells and wells drilled in attempts to find a water supply for the mine; (2) falling head and packer tests conducted in borings completed for hydrogeologic/geotechnical studies; and (3) real-time observation of hydrologic properties as the mine pits have been excavated.

The above Draft EIS/EIR references state that results of testing of the upper portion of the Bear Canyon Conglomerate indicates that permeability of this unit ranges from about 8×10^{-5} cm/sec at shallow depth to less than 10^{-6} cm/sec at a depth of 100 feet. The characteristic of decreased permeability with depth is common because effects of weakening and stress relief diminish with increasing overburden depth and pressure. This range of permeability identified in the Draft EIS/EIR is conservative considering the results of packer tests in both ESI-1 and ESI-2 (see Tables 3.2 and 3.3 of Appendix B to the Draft EIS/EIR). Table 3-5 of the Draft EIS/EIR summarizes the packer test results. As footnoted in Table 3-5, these values may be high due to excessive pressure which can cause hydrofracturing. The Draft EIS/EIR discussion of permeability concludes that migration of liquids in the vadose (unsaturated) zone materials, would be slow. Further, the permeabilities measured in the Bear Canyon Conglomerate represent primarily horizontal flow. Vertical permeability may be an order of magnitude less because of the stratified nature of this sedimentary deposit. The stratification and lower vertical permeability would result in any seepage through the vadose zone being prone to lateral spreading within this rock unit. Downward migration would be slow due

Response to Comment No. 136 (Cont'd)

to the lower permeability and because of the need to increase the moisture content of subsurface materials to the field moisture capacity at the wetted front.

Most of the vadose zone beneath the proposed landfill is Bear Canyon Conglomerate. Large exposures of this formation in the Big Chief Mine Pit indicate that the cemented conglomerate is massive with no evidence of large fracture zones. The lack of large fractures is also documented by the very high rate of core recovery within the conglomerate. As discussed in Sections 3.7 and 3.9.2 of Appendix B to the Draft EIS/EIR, two continuously cored intervals of cored borings in the conglomerate (Borings ESI-1 and ESI-2) average 97 and 99 percent recovery. Consistent with observations of exposures in the mine pit, the continuous cores did not reveal evidence of substantive fractures. Approximately 50 percent of the conglomerate core samples were logged to have a silty or clayey cement matrix, further indicating the low-permeability and stratification characteristics of this formation.

In contrast to the conglomerate, permeability in the basement rock is controlled by widely spaced fractures. Hydraulic tests conducted in Boring ESI-2 (Draft EIS/EIR Table 3-5) show that the permeability of the majority of the unfractured basement rock is very low, on the order of 10^{-7} cm/sec or less. This very low permeability is consistent with the experience of exploration geologists, who frequently logged exploration borings in the basement rock as "dry," even below the elevation where water would be expected. The permeability of a more fractured portion of the basement rock was evaluated by conducting a pumping test at existing Mesquite Mine monitoring well GW-1, located at the southern boundary of the proposed landfill or described in Section 3.9.5 of Appendix B to the Draft EIS/EIR. That test indicated a long-term permeability of 5×10^{-5} cm/sec. Sergent, Hauskins and Beckwith (1984a)(2) estimated the average permeability of the basement rock to be about 5×10^{-6} cm/sec, determining the amount of water inflow that may occur at the Big Chief Mine Pit. As discussed in Section 5.4.2 of Appendix B to the Draft EIS/EIR, operating experience at the Mesquite Mine confirms that these estimates

(2) Sergent, Hauskins and Beckwith. *Geotechnical Investigation Report, Mesquite Project, Imperial County, California; Technical Report* (unpublished), Job Number E83-69. Prepared for Gold Fields Operating Co. - Mesquite, May 15, 1984a.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 136 (Cont'd)

are valid. Observations in the pits indicate that minor inflow occurs along fracture zones, with wide intervals that do not produce measurable flow between fracture zones. While flow within the basement rock is controlled by fracture zones, interconnection of these zones results in predictable flow as discussed in the Subbasin Characteristics section above.

The low-permeability of the substrate beneath the project area is also documented by the minimal yields of wells that have been completed in the subbasin. As shown in Table 3-1 of Appendix B to the Draft EIS/EIR, wells in the subbasin typically yield less than 10 gpm. The largest well drilled in the subbasin was Well MCR-80, drilled into conglomerate to a depth of more than 1,000 feet. Although this well was installed with 600 feet of perforations below the saturated zone, complete drawdown occurred at a pumping rate of 30 gpm as discussed in Section 3.5.1 of Appendix B to the Draft EIS/EIR. The pumping test analysis of this well concluded that the well was not capable of even 20 gpm for a period of 48 hours.

VADOSE ZONE MIGRATION

Because of the arid conditions at the site, the low moisture content of the MSW residue, and the daily and intermediate layers of compacted soil (cover) to be placed at 10-foot vertical intervals, it is not anticipated that leachate would be generated (Sections 4.0 and 6.3.2 of Appendix B to the Draft EIS/EIR), except possibly for very short periods if rainfall occurs during the initial startup period of a disposal cell. After one or two layers of MSW residue and related daily cover is placed, precipitation would not be expected to reach the LCRS and landfill liner system. The LCRS installed above the proposed liner would remove any minor leachate that may form during these short periods for treatment at the on-site Water Reclamation Facility (Sections 2.1.5 and 2.1.14 of the Draft EIS/EIR). The liner and LCRS include redundant systems to preclude the potential for downward migration of liquid through the containment system.

Protection against the potential for downward seepage of liquids to affect water quality in the subbasin is further provided by the natural low moisture content and low-permeability conditions in the vadose zone. A final additional line of defense against the potential to affect water

Response to Comment No. 136 (Cont'd)

quality in the main alluvial basin is provided by the distance to the main basin, the low-permeability of geologic materials along any potential contaminant migration path, and the very minor magnitude of recharge contribution that the water beneath the landfill represents. Each of these aspects, are discussed in Section 3.1.2.2, 4.1.2.2, and Appendix B of the Draft EIS/EIR.

Monitoring systems would be installed to confirm that leakage from the landfill is not occurring and/or to provide an early warning of the potential for leachate or LFG to migrate into the vadose zone. The initial landfill disposal cells would be located where ground water is over 300 feet deep, and would have monitoring systems to confirm that leakage is not occurring. The shallowest depth to ground water is about 140 feet, which occurs at the northwest corner of the footprint.

Appendix B in the Draft EIS/EIR discusses circumstances resulting in the low potential for liquid from the landfill to migrate to ground water and the extremely long travel time that would be required in the event that migration of liquid through the liner and downward to ground water could occur. The travel times of 100 years to ground water in the subbasin and an additional 1,000 years to the main alluvial basin that are referenced on page 4-9 of the Draft EIS/EIR were extremely conservative and overly simplified estimates taken from a 1992 version of the Hydrologic Assessment Report (Environmental Solutions, Inc. 1992b). These initial estimates did not account for the three-component composite liner system, the low moisture content of geologic materials in the vadose zone, lateral spreading, and other geotechnical considerations related to migration of a wetted front through an unsaturated medium. Revised travel time calculations that incorporate these considerations were included in Appendix H.1 of Appendix B of the Draft EIS/EIR (see page H.1-G of Appendix B), but were not discussed in the text. The revised calculations, indicate that 1,000 and 10,000 continuous years of leakage from an aligned defect in the three-component composite liner would be required for leachate to reach depths of 20 and 50 feet, respectively. Over a million years would be required for the seepage to reach ground water at a depth of 300 feet.

The ground water protection system designs for the landfill do not rely upon the potential for natural degradation and attenuation of leachate for

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 136 (Cont'd)

ground water protection. The statement regarding these natural mechanisms for retarding chemical migration in the leachate portion of Section 4.1.2.2 of the Draft EIS/EIR is accurate. For example, it is well documented that organics in slowly migrating liquids will degrade over reasonable periods due to natural biological activities. Also, chemicals, such as metals, frequently become less mobile when exposed to changes in pH and Eh conditions within the subsurface. Again, it is noted that because of the site conditions and protection systems planned for the landfill, ground water impacts are not anticipated regardless of the extent of natural attenuation or degradation that may occur.

SUBBASIN WATER QUALITY

The chemistry of ground water in the subbasin is discussed in Section 3.1.2.2 of the Draft EIS/EIR and Section 5.1 of Appendix B to the Draft EIS/EIR. Table 3-6 in the Draft EIS/EIR presents representative water quality data through 1992 when the Draft EIS/EIR document preparation was initiated. The following Response Table 13 provides more extensive results for TDS at each of the Mesquite Mine monitoring wells through the end of 1993.

As shown, this general ground water quality constituent has been consistent throughout the monitoring period.

Expanded monitoring of existing monitoring wells in the vicinity of the landfill will be implemented before MSW residue is disposed at the site. The RWQCB will require this expanded program to occur for a minimum period of one year before disposal operations begin.

Total dissolved solids of ground water in the subbasin ranges from about 870 to over 2,000. The TDS at all wells in the subbasin exceeds the recommended secondary drinking water standard of 500 mg/L identified in Title 22 of the California Administrative Code (CAC). Other MCLs in CAC Title 22 that are routinely exceeded by all or the majority of wells in the subbasin include fluoride, sulfate, and manganese. The iron MCL is also commonly exceeded. The footnotes to Table 3-6 of the Draft EIS/EIR indicate which of the MCLs are secondary standards, and that "upper" and "short-term" levels designated in Title 22 may be higher. For example, the upper and short-term levels for TDS are 1,000 and 1,500 mg/L, respectively.

Response to Comment No. 136 (Cont'd)

RESPONSE TABLE 13
TDS FOR MESQUITE MINE MONITORING WELLS
(mg/L)

DATE	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6
10/25/85	2128	1960	869	- -	- -	- -
12/12/85	2032	1992	890	- -	- -	- -
10/23/86	- -	- -	- -	1270	- -	- -
10/28/86	1819	- -	- -	- -	- -	- -
1987 Monthly Sampling Average	1819	1935	1128	1317	- -	- -
1988 Monthly Sampling Average	1876	2160	896	1307	- -	- -
1989 Monthly Sampling Average	1919	2168	888	1315	1187	- -
1990 Monthly Sampling Average	1776	1964	876	1156	1076	- -
1991 Monthly Sampling Average	1657	2251	1034	1373	1263	1359
1992 Monthly Sampling Average	1805	1784	906	1200	1205	1366
1993 Monthly Sampling Average	1828	1922	847	1201	1219	1435

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 136 (Cont'd)

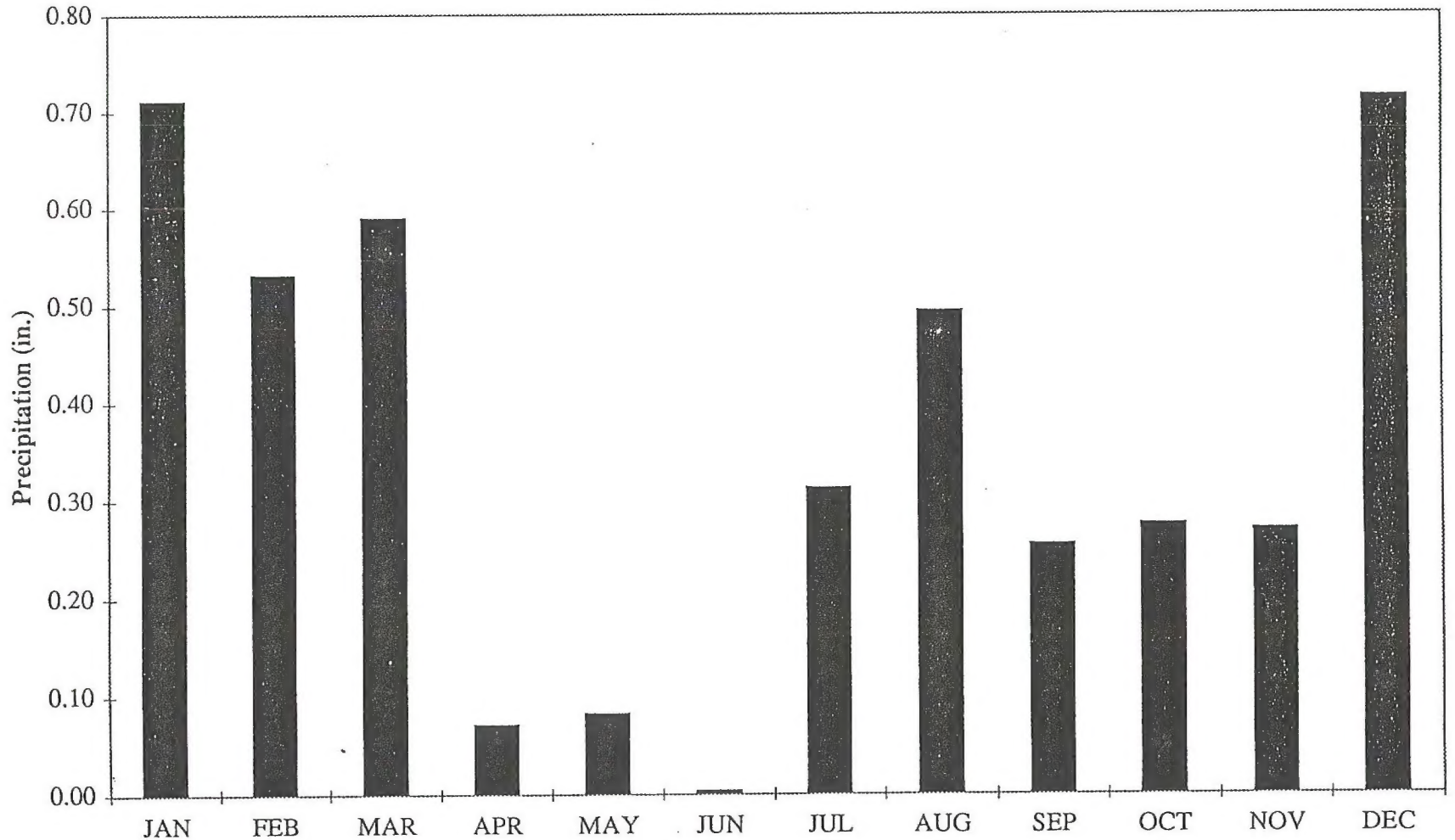
The Draft EIS/EIR statement that "water quality [in the subbasin] has consistently failed to meet certain drinking water standards..." is correct. However, this statement is not intended to imply that the water could not be treated to obtain potable quality. It could be treated to meet drinking water standards through readily available means (e.g., reverse osmosis), as is used at the existing Mesquite Mine for water extracted from the Amos/Ogilby Basin. Further, the water quality discussions in the Draft EIS/EIR are in no way intended to imply that water quality protection may be relaxed or that any degradation would be acceptable. The water is of suitable quality for protection against degradation to be required by state and federal policies. Tables 3-5 and 3-6 have been revised in this Final EIS/EIR to include a footnote that the Imperial County Department of Environmental Health Services considers water with up to 1,000 TDS to be potable.

Response to Comment No. 137

Please see response to Comment No. 110.

Response to Comment No. 138

The requested monthly data are shown, in bar graph form, in the following Response Figures 6, 7, 8, and 9. Table 4.1 of Appendix B has also been updated and is included.



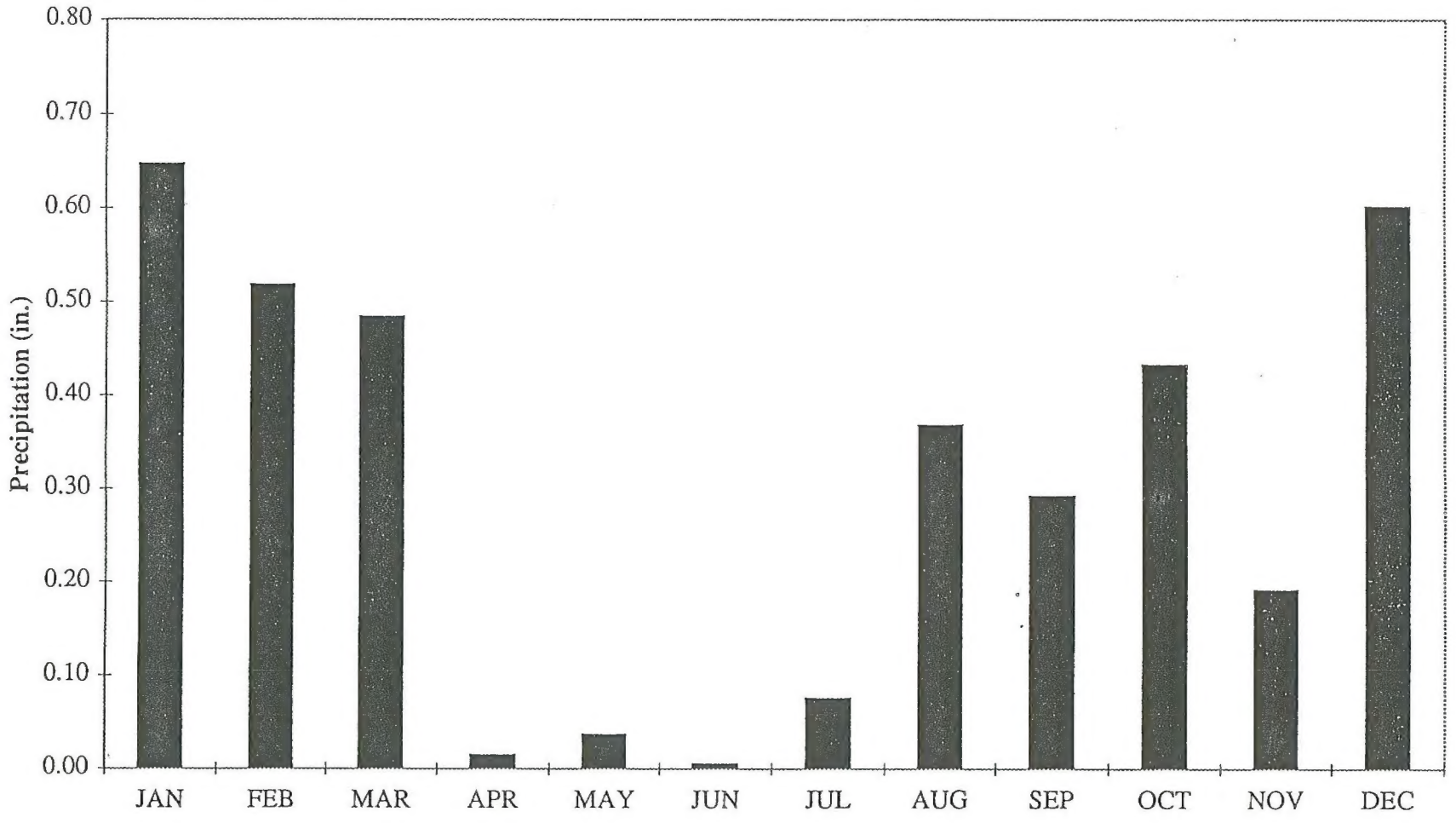
SOURCE: Environmental Solutions, Inc., 1994.

Proposed Mesquite Regional Landfill

Mesquite Mine Average Monthly Precipitation Data (for the period of 1983-1994)

RESPONSE FIGURE

6

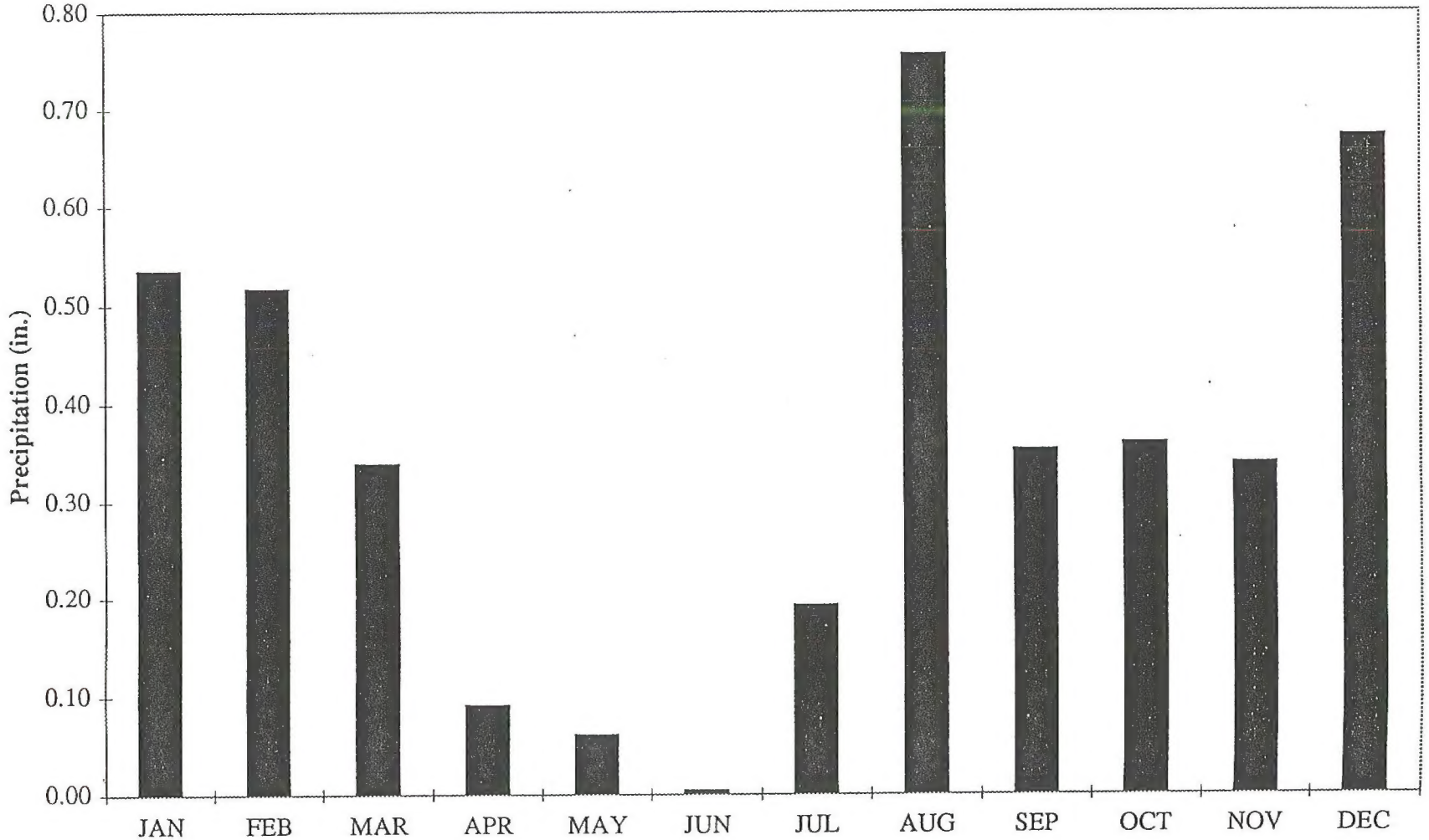


SOURCE: Environmental Solutions, Inc., 1994.

Proposed Mesquite Regional Landfill

El Centro Average Monthly Precipitation Data (for the period of 1980-1994)

RESPONSE FIGURE 7

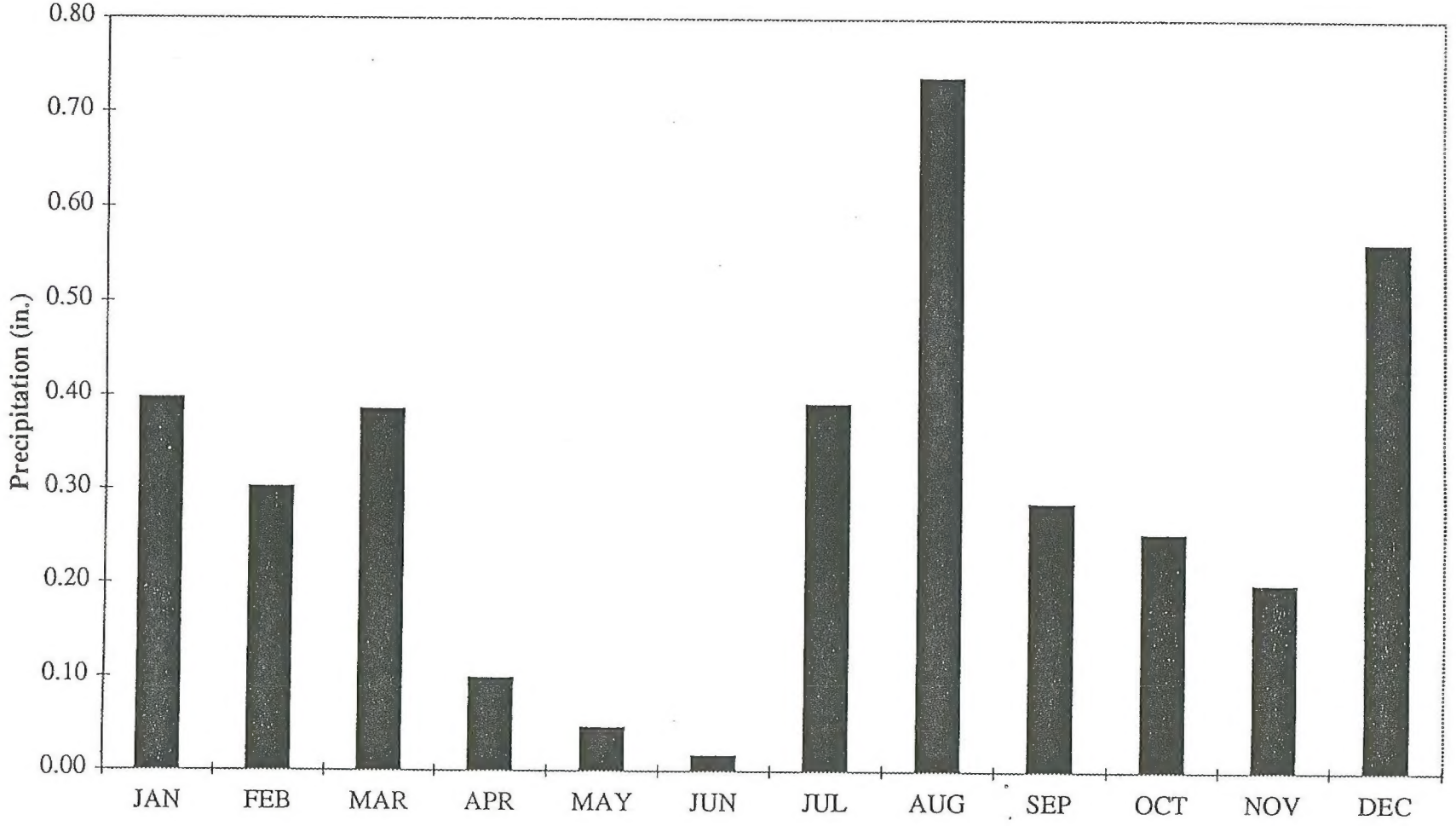


SOURCE: Environmental Solutions, Inc., 1994.

Proposed Mesquite Regional Landfill

Blythe Average Monthly Precipitation Data (for the period of 1980-1994)

RESPONSE FIGURE 8



SOURCE: Environmental Solutions, Inc., 1994.

Proposed Mesquite Regional Landfill

Yuma Average Monthly Precipitation Data (for the period of 1980-1994)

RESPONSE FIGURE **9**

Response to Comment No. 138 (Cont'd)

TABLE 4.1
RAINFALL DATA

Year	Weather Station				
	El Centro	Blythe		Yuma	Mesquite Mine
		Airport	Town Station		
1980	4.06	4.35	6.28	2.07	- -
1981	3.86	3.24	1.27	1.55	- -
1982	4.92	5.17	4.24	5.46	- -
1983	5.50	5.96	5.88	5.36	1.47 (1)
1984	2.33	6.06	7.79	6.19	4.99
1985	4.72	5.07	4.91	2.68	5.18
1986	3.91	3.68	3.87	1.73	3.17
1987	2.24	3.33	3.35	3.67	3.03
1988	2.43	2.93	3.53	2.72	0.79 (2)
1989	0.92	1.62	1.26	6.75	0.01
1990	1.97	1.66	1.66	1.95	3.21
1991	3.86	4.32	4.32	3.17	3.66
1992	7.34	9.16	6.26	5.13	10.58
1993	4.41	5.62	5.03	4.62	7.71
1994	2.03	3.24	2.36	2.12	3.30
Average	3.63	4.36	4.13	3.68	4.48

-- = Not Available
(1) Data missing for January through April, year not used in average calculations.
(2) Data Missing for August through December, year not used in average calculations.
Source: Environmental Solutions, Inc., 1995.

Response to Comment No. 139

The months during which the soil moisture content were measured were June, July, and August 1983. The heap leach pads are saturated when they are in use by the mine. It is expected that the moisture content of the heap leach material will be approximately 8 to 9 percent when it is used for landfill cover (ESI, 1995).

Section 5.2.2, No. 5: This section discusses recharge of the subbasin area. The main recharge area is stated to be in the higher elevations on the Chocolate Mountain slopes where basement rock is exposed. Also, the text states that recharge in the subbasin is very small compared to that which occurs in the main Amos/Ogilby alluvial aquifer.

140 (a) Is there any potential for significant recharge where the basement rocks outcrop within the proposed landfill area?

141 (b) The differences in surface conditions between the subbasin and main alluvial aquifer which result in the different recharge rates should be described.

142 Section 6.2: This section describes, in part, the potential drawdown of water wells in the general vicinity due to increased pumping at the existing Mesquite Mine well field. The FEIS should include a description and map showing the current impact of pumping ground water from the existing well field on all wells in the area.

143 Section 6.3.2, No. 2: This section mentions the possibility that leachate could migrate through the landfill liner. What data are currently available or could be collected to determine if leachate would migrate along the alluvium/Bear Canyon Conglomerate contact to the edge of the subbasin considering the permeability difference between the two units?

144 Depth to Ground Water and Elevation of Potentiometric Surface Beneath the Site: The data presented to support a consistently sloping ground water zone from NE to SW across the proposed landfill site as described in the text and on the figures are not entirely clear. Mixing data on ground water occurrence from borings and wells to construct either a depth to ground water map or a potentiometric surface map is not always valid. The areas of concern in Appendix B of the DEIS include the descriptions of the Mesquite Mine Leach Pad Monitoring Wells in Section 3.8, Figure 3.2 Locations of Borings and Wells, Figure 5.2 Depth to Ground Water in Subbasin, Figure 5.3 Subbasin Ground water Contours, and Appendix E Ground Water Level Elevations Data Evaluated for Ground Water Contour Map.

145 (a) The legend for Figure 5.3 describes the contours as the "interpreted depth to ground water." The contours appear to represent elevations, not depths. This should be clarified.

146 (b) It appears that several wells shown on Figure 3.2 (i.e., GW-5, GW-6, and the Singer Well) are not included as data points on Figures 5.2 and 5.3. The rationale for determining which data

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 140

Please see response to Comment No. 136.

Response to Comment No. 141

Surface conditions for the alluvial portion of the subbasin and main alluvial aquifer result in only limited direct recharge by infiltration. Instead, as discussed in the ground water occurrence portions of Section 3.1.2.2 of the Draft EIS/EIR and Section 5.2 of Appendix B to the Draft EIS/EIR, the recharge to these areas differs as follows:

- Recharge occurs in the subbasin on a limited basis primarily from rainfall infiltration into the basement rock (on the order of tons of acre-feet per year per square mile) where it is exposed in the Chocolate Mountains.
- Recharge to the alluvial basin is much larger, estimated to be between 50,000 and 120,000 acre-feet per year, primarily from a combination of the Colorado River and the unlined All American Canal.

Response to Comment No. 142

Table 6.1 of Appendix B to the Draft EIS/EIR shows estimated drawdown effects for wells in the area of the Mesquite Mine. The estimates were developed based on actual drawdown experienced due to current Mesquite Mine pumping of about 1,000 acre-feet per year. As can be seen, the drawdown after 25 years at 1,000 acre-feet is insignificant. If we assume that the Mesquite Mine has been pumping at a rate of 1,000 acre-feet for each of the 10 years it has been in operation (this is conservative, actual rates were lower in initial years of operation), drawdown at these area wells would be on the order of a couple of inches, and therefore not noticeable on a map.

Response to Comment No. 143

As discussed in Section 2.1.4 and Section 4.1.1 (Mineral Resources) of the Draft EIS/EIR, higher permeability portions of the alluvium layer above the Bear Canyon Conglomerate would be removed prior to final grading for each landfill segment in order to recover the gravel resources for use in

Response to Comment No. 143 (Cont'd)

site construction (e.g., the LCRS layer or for stockpiling as a resource). The final grade for the base of each segment would then be formed by compacting fine grained portions of the alluvium or mine overburden or ore residue. These materials are expected to have a permeability on the order of 10^{-5} cm/sec (see discussion in response to Comment No. 110), which is comparable to the top portion of the conglomerate. As a result, it is not anticipated that a shallow preferential flow path through the alluvium would exist beneath graded and lined segments.

Response to Comment No. 144

A description of the data used in the Draft EIS/EIR to determine depth to ground water is included in response to Comment No. 98.

Response to Comment No. 145

The contours, in Figures 5.2 and 5.3 in Appendix B, are mistakenly labeled as depth to ground water contours when they are actually ground water elevations, not depths. The same error exists in Figure 3-14 of the Draft EIS/EIR. This has been corrected in this Final EIS/EIR.

Response to Comment No. 146

In each case, borings and wells were selected from Figure 3-2 to provide representative data to construct Figures 5.2 and 5.3. The information is also presented in table form in Appendix E to Appendix B to the Draft EIS/EIR. The resulting figures accurately depict depth to ground water and ground water elevations in the site area.

points were used to construct the maps on Figures 5.2 and 5.3 should be explained.

147 (c) The discussion of well drilling and construction in Section 3.8 for the Mesquite Mine leach pad monitoring wells is not completely clear. Descriptions of the depth at which ground water was first encountered in the boring should be clearly distinguished from the depth at which ground water stabilized in the well. Also clarify whether or not the Bear Canyon Conglomerate (especially the lower lacustrine claystone) acts as a confining layer within the area considering all drilling data currently available.

148 (d) For each boring described in Appendix E as "dry", please state the time period that the boring was allowed to stand and be
149 monitored for water inflow before it were backfilled.

(e) State whether or not any of the vadose zone monitoring wells contained water during their regular monitoring periods.

150 Figure 3.2: There are numerous wells and borings currently within the footprint of the proposed landfill. Have they all been properly backfilled and/or destroyed, or will this occur in the future?

151 Landfill Closure

According to the DEIS (p. 2-74), the "Applicant would encourage the establishment of natural vegetation on appropriate areas." It is unclear what measures would be involved in "encouraging" revegetation. The FEIS should identify the criteria that would be used to determine "appropriate areas" for revegetation as well as measures that would be taken to revegetate the area (e.g., preparing the substrate, seeding, etc.). The FEIS should also identify when certain areas would be able to be revegetated. We recommend that areas be revegetated as soon as possible after cessation of disturbance.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX (CONTINUED)

Response to Comment No. 147

Please see response to Comment No. 136.

Response to Comment No. 148

Please see response to Comment No. 136.

Response to Comment No. 149

No water has been encountered in vadose monitoring wells at the Mesquite Mine.

Response to Comment No. 150

Please see response to Comment No. 62.

Response to Comment No. 151

The term encourage is not meant to imply that any active steps would be taken to revegetate the surface of the proposed landfill. Revegetation would not be required on the landfill surface because coarse overburden material would be used on the outside of the stability berms to prevent erosion. The Applicant would not interfere with the establishment of vegetation on the landfill surface through natural processes, provided the plants that establish on the landfill surface would not damage the landfill cover or stability berms.

Areas of the site disturbed by project-related activities, excluding the landfill itself and areas covered by existing SMARA and BLM approved mine reclamation plans, shall be revegetated by the Applicant. A minimum vegetative coverage of 3 percent is the goal of the revegetation program and the Applicant shall achieve this goal within five years of a determination by the BLM, County of Imperial, and the Applicant that a disturbed area would not be used again for landfill-related purposes. Revegetation could be postponed at the discretion of the Director of the Planning Department if a future permit is issued by the County of Imperial for another use of the disturbed area. In this case, revegetation would have to be completed within five years of the expiration of the future County permit. Natural revegetation shall be supplemented by transplanting and/or seeding as necessary to meet the 3 percent coverage goal. This mitigation measure has been incorporated into the Final EIS/EIR, shall be an element of the landfill closure plan, and would be a condition of the Conditional Use Permit.

Mesquite Landfill
2000

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
BOX 99100
YUMA, ARIZONA 85369-9100

IN REPLY REFER TO:
11000
3AS
28 Apr 94

Mr. Thomas Zale
Bureau of Land Management
1661 South 4th Street
El Centro, California 92243

Dear Mr. Zale:

I am writing in response to Mr. G. Ben Koski's request to comment on the draft Environmental Impact Statement and Environmental Impact Report (EIS/EIR) for the proposed Mesquite Regional Landfill. The document has been reviewed by the pertinent Air Station staff personnel.

152 It is the opinion of the Air Station Natural Resource Specialist that the EIS/EIR does not adequately evaluate the affected bat population. Section 3.1.3.3., page 3-50, states that the local bats are migratory and the proposed landfill site is not identified as being within a wildlife corridor. However, the California leaf-nosed bat is a year round resident of the nearby American Girl Mine. It is requested that this slight discrepancy be reviewed before preparation of the final EIS/EIR and that this Command be notified of the result of your evaluation.

If there are any questions concerning this input, please contact me at (602)341-2272/2103. Thank you for giving us the opportunity to comment.

T. A. MANFREDI
Management Assistance Officer
By direction of the
Commanding Officer

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES MARINE CORPS, SIGNED BY T. A. MANFREDI, MANAGEMENT ASSISTANCE OFFICER, DATED APRIL 28, 1994.

Response to Comment No. 152

It is not expected that the proposed landfill would create roost sites for the California leaf-nosed bat. As described on page 4-27 of the Draft EIS/EIR, the proposed landfill is not within the foraging range of any known California leaf-nosed bat populations. Therefore, no impacts are expected to occur. The American Girl Mine, which has a California leaf-nosed bat population, is located approximately 20 miles from the proposed landfill site. Because the maximum foraging area of California leaf-nosed bats is approximately three miles, no impacts to this population would be expected.

Ken Sturm
Biological Sciences Technician
Salton Sea NWR Complex

April 22, 1994

COMMENTS ON THE EIS OF THE PROPOSED
MESQUITE REGIONAL LANDFILL

The disposal of municipal solid waste (MSW) has been a continuing problem in the United States, as our existing regional landfills become full and other disposal solutions are still being developed. The proposed Mesquite Regional Landfill has been designed to accommodate the growing need for waste disposal in the Southern California area, with possible future use from communities outside this area. The proposal is pertinent when looking at the expected life of area landfills all of which will be full in as little as 35 years.

153 After a brief review of the EIS, it seems the best site for the landfill, if one must be constructed, would be that described in the proposed action. This site is located just north-east of Glamis off of highway 78, on and adjacent to the existing Mesquite Gold Mine and Ore Processing Facility.

The physical characteristics of the area make it appealing for the construction of the MSW landfill:

- -Ground water is deep (i.e. at least 140').
- -Substrate (Bear Canyon Conglomerate) was found to be unfractured and have a low permeability.
- -Low annual precipitation, therefore low erosion potential.
- -Runoff can be incorporated into existing system in place for the Mesquite Mine.
- -Existing railway may be used to deliver MSW to site.

If constructed, the landfill would handle only MSW and all hazardous wastes and recyclable materials would be collected and disposed of properly. It must be constructed according to the strict environmental standards with a triple composite liner on the bottom, a leachate collection and recovery system, and a landfill gas collection system. The methane gas would be used to generate power "once economically feasible". The complex would create an estimated 268 jobs.

In exchange for the 1,750 acres on the proposed site, the BLM would be given the surface and subsurface rights to a total of 2,241 acres. This land is located in five parts; two in the Santa Rosa Mountains Natural Scenic Area, and three in the Chuckwalla Bench area. They are considered to have similar or greater resource value than the on site property.

The greatest affect the proposed site would have on the biological resources appears to be with the resident population of threatened desert tortoises. The site has been listed as

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES NAVY SALTON SEA NWR COMPLEX, SIGNED BY KEN STURM, BIOLOGICAL SCIENCES TECHNICIAN, DATED APRIL 22, 1994.

Response to Comment No. 153

Comment noted.

Category III habitat for the tortoise, and considered "not essential for maintenance of viable populations with a low to medium density". A total of 83 desert tortoises are assumed to be living on the site.

If the project is to be undertaken, all desert tortoises must be relocated to habitat that will be able to handle the increased use of this species. Relocation is known to cause increased stress and sometimes death due to dehydration. The established tortoise population in the surrounding area will also face increased competition for food, cover and nest sites once those in the project area are relocated in this habitat.

154 Relocation of an threatened species should only be attempted when absolutely necessary.

Desert tortoise relocation has already been made to the "Vista Well Relocation Area" in previous years. Although this may set precedent for future relocation, it is unlikely that a population of 80+ tortoises are compatible with the area. It is known to be used by off-road vehicles regularly, not to mention the Vista Mine Road which runs through the area.

Previous studies on tortoise relocation are less than conclusive and it is recommended that all relocation areas be intensively studied to insure that the habitat can handle the pressure. It may also by important to insure that relocation areas are not currently inhabited by tortoises to prevent competition stress and the possibility of spreading disease. If

155 relocation is to be attempted with the resident population of tortoises, a more secluded and protected area than the "Vista Well Relocation Area" would be preferred.

The elimination and degradation of habitat is one of the main causes for species declines in the United States and World today. Although this habitat is placed in the Category III type, it is still an area which supports a population of the desert tortoise, regardless of actual density numbers. For this reason

156 this area should be regarded as critical for the resident population of desert tortoise.

Once the landfill is in operation, the tortoise will face other dangers associated with the project. The proposed rail spur will create a barrier between north and south habitats already impeded by highway 78. Tortoises may become trapped between rails and die of exposure. Regular traffic to and from the site will increase the possibility of road kills. There is also the potential for the increase in tortoise predators, such as the Raven and Coyote due to the operation of the proposed facility.

157 Another threat to the desert tortoise is potential negligence of employees at the landfill. Will a simple education program be enough to convince workers to take the time to call a biologist or "qualified person" when a tortoise is found resting under truck tires? If employees move tortoises themselves, will they remember to observe all important handling steps to prevent undue stress to the animal?

Other negative impacts on the existing biological resources include the loss of nesting and wintering habitat of migratory song birds which has been an increasing problem everywhere. The

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES NAVY SALTON SEA NWR COMPLEX (CONTINUED)

Response to Comment No. 154

Tortoise relocations would only occur from those areas that are in close enough proximity to the proposed landfill or rail spur such that the individual tortoise is threatened.

Response to Comment No. 155

At this time it is anticipated that tortoise would be relocated to the Vista Well area; however, the location of the tortoise relocation area will be determined during the Section 7 consultation with the U.S. Fish and Wildlife Service.

Response to Comment No. 156

The proposed relocation of any tortoise within the project area would mitigate impacts to the local population. The transfer of at least 3,657 acres of desert tortoise Critical Habitat in the Chuckwalla Bench ACEC from private to public ownership will mitigate impacts to the species as a whole.

Response to Comment No. 157

The Desert Tortoise Awareness Education programs that are proposed for the Mesquite Regional Landfill would be based on programs already in place at the Mesquite Mine. The Mesquite Mine Desert Tortoise Awareness Education programs were developed in conjunction with the BLM and the U.S. Fish and Wildlife Service as part of the mine's Section 7 consultation. All employees are required to undergo this program. Each employee would carry a procedure card which includes instructions for what to do if a Desert Tortoise is encountered. An expanded booklet is provided for each employee at the formal training sessions.

This program has been successful and, when implemented at the proposed Mesquite Regional Landfill, would address the potential for negligence of employees at the landfill in connection with the Desert Tortoise. The BLM, in conjunction with the U.S. Fish and Wildlife Service, would ultimately define and approve the Desert Tortoise Awareness Education Program for the Mesquite Regional Landfill.

desert microphyll woodland habitat on the site has been considered important to resident and migratory species due to habitat loss and disturbance along the Colorado river valley.

158 Although no endangered bird species were found on the site, elimination of any habitat know to be used by neo-tropical migrants should be reviewed carefully.

Construction of the landfill will also mean the loss of foraging habitat for large mammals such as Big Horn Sheep and Mule Deer. However, the proposed site is considered to be relatively poor quality habitat for these species, and is not expected to fragment their habitat by blocking critical migration or travel routes.

Other concerns on the potential affect on the local wildlife center on the transportation of MSW across the trestle over Salt Creek, where the endangered Yuma Clapper Rail and Desert Pupfish are know to occur. Although this is a legitimate concern it is considered a very remote possibility that a train derailment would occur at this very spot even with the increased trip

159 schedule which would be implemented to service the landfill. To ensure minimal risk at this site, rail line safety checks should be made at regular and frequent intervals.

To mitigate losses the applicant has offered a land exchange. This property is thought to be of higher quality in it's biological and scenic resources. The parcels offered near the Chuckwalla Bench are thought to be "areas of critical environmental concern" and are considered Category I (the best) habitat for the desert tortoise. Both the Chuckwalla and Santa Rosa Mountain parcels have Category 1 and 2 vegetation species on site.

160 These two areas of land offered to the BLM are consistent with current acquisition practices. The land in the Santa Rosa Mountain National Scenic Area is desirable for it's undeveloped and protected wilderness value. The BLM has been in the process of acquiring land to consolidate public ownership of this area, so the offered parcels would aid this effort.

Also, the BLM has been trying to consolidate public ownership of all Category I desert tortoise habitat. The areas offered near the Chuckwalla Bench are considered to have higher quality habitat for the threatened desert tortoise and are considered "areas of critical environmental concern" so their protection and preservation are important. Therefore the three parcels near the Chuckwalla Bench would also be desirable.

161 However, are these five separate parcels worth more than the one single contiguous parcel of land on the proposed site ? Although the habitat and scenic qualities were found to be of greater value than those at the proposed site, they are only fragments of protected habitat. A larger contiguous plot near the Chuckwalla Bench should be sought in order to make up for the loss of tortoise habitat and relocation on the proposed site. Areas without off-road vehicle use may also be preferred depending on management decisions.

The location of the proposed landfill seems to have the appropriate physical characteristics for a MSW facility. A project this size is bound to have impacts on the local

RESPONSE TO COMMENT LETTER RECEIVED FROM THE UNITED STATES NAVY SALTON SEA NWR COMPLEX (CONTINUED)

Response to Comment No. 158

The proposed Mesquite Regional Landfill project would incrementally reduce the habitat for migrant birds; however, given that the proposed site is a very small part of the similar habitat that surrounds the site, impacts would not be significant. Also, the Applicant will be transferring ownership of 3,657 acres of privately owned land acceptable to BLM to federal ownership as compensation for the lands impacted by the proposed landfill.

Response to Comment No. 159

MSW residue would be carried by SP, a common carrier, to the proposed site. SP is responsible for track inspections and maintenance activities. SP does not anticipate a need to increase track inspection or maintenance as a result of the proposed project.

Response to Comment No. 160

Comment noted.

Response to Comment No. 161

The proposed exchange parcels are not contiguous to each other; however, the exchange and compensation parcels will fill in existing gaps in areas where public and private lands ownership alternates, section by section, like a checker board. The net effect will be to create the large contiguous publicly-owned parcels described in this comment.

biological resource, the threatened desert tortoise in particular. A decision must be made as to the extent in which the local population of tortoises will be affected and whether it would be acceptable. These comments center only on the biological impacts of the proposed landfill. There are, of course, many other concerns which should be carefully considered by the public before implementation of this landfill.

I hope these thoughts and comments aid your decision making process.

Sincerely,

Kenneth K. Sturm
Biological Sciences Technician

RECEIVED
94 JUL -7 PM 2:55
EL CENTRO RESOURCE AREA
EL CENTRO, CA.

North Eagle Lake BLM Campground
Susanville District
July 4, 1994

COMMENTS ON MESQUITE LANDFILL DRAFT EIS/EIR

Pages could be filled with comments on the inadequate, incomplete
162 and internally conflicting Mesquite Landfill Draft EIS/EIR. But it would be pointless because the very concept of the project is flawed.

Originally, the project was presented as a two-way solution: a technological and socially acceptable disposal of Southern California's trash into the pits created by Goldfield Mining Company's gold extraction process.

However, the pits are now off limits. The trash will be stacked on some 6 □ miles of the CDCA desert.

The project is flawed. It is no longer a two-way solution but is a new problem in and of itself.

In addition:

163 1. The project is flawed because it appears to depend on a ceaseless stream of unrecycled wastes, regardless of modern American waste management principles.

164 2. The range of alternatives is flawed. There is little discussion of the priority of this project in relationship to the approved and proposed CDCA landfills, and the sources of wastes upon which all of them depend, recycled or not. The impact of each alternative upon adjacent, effected agencies is incomplete. The "no action" alternative
165 is not fully analyzed.

RESPONSE TO COMMENT LETTER RECEIVED FROM HARRIET ALLEN, DATED JULY 4, 1994.

Response to Comment No. 162

This EIS/EIR adequately describes the environmental consequences of the proposed Mesquite Regional Landfill. It is complete and internally consistent. The commentor's opposition to the project is noted.

The Applicant has never proposed a fill the mine pits alternative, only to productively reutilize the material in the overburden piles. Nevertheless, the BLM and County of Imperial considered an alternative that would have resulted in filling the mine pits. The reasons why this alternative was dismissed from further consideration are presented in Section 2.4.2 of this EIS/EIR.

Response to Comment No. 163

The project relies on a finite stream of MSW that has been processed at a transfer station/MRF to remove almost all recyclable, hazardous and other unacceptable wastes. AB 939 recognizes the need for environmentally safe landfills to dispose of the MSW residues that cannot be diverted from landfilling. With the full implementation of AB 939, 50 percent of MSW will still require landfill disposal or transformation (i.e., burning).

Response to Comment No. 164

Draft EIS/EIR pages 2-75 and 2-78 describe that the other regional landfills are discussed, where appropriate, as cumulative impacts and not alternatives, since the projects are not necessarily alternatives in the true sense of the analysis required by NEPA and CEQA. The waste stream available from Southern California coastal communities is capable of potentially supporting several regional landfills. Thus several proposed projects may in fact operate in concert, rather than alternatively. The cumulative analysis is also a more useful analytical tool, in that it identifies the combined effects of the proposed regional landfills rather than isolating the individual projects in a simplistic alternatives analysis.

RESPONSE TO COMMENT LETTER RECEIVED FROM HARRIET ALLEN (CONTINUED)

Response to Comment No. 165

The impacts of the proposed Mesquite Regional Landfill and its alternatives on Imperial County and other neighboring areas are described in Chapter 4 of the this Final EIS/EIR. The No Action/No Project Alternative has been adequately analyzed in this EIS/EIR. The specific impacts of the No Action Alternative are very difficult to determine because the actual source of the MSW residue that may be hauled to the proposed landfill and the landfills that would accept that waste cannot be predicted reasonably at this time and it would be speculative to try to guess where future landfills may be sited.

166 3. Protection of resources is flawed. Data is missing or incomplete that demonstrates that the project is in full compliance with CEQA, NEPA, FLPMA and other acts such as clean Air, clean Water, Endangered Species, Sustained yield, Surface mining Reclamation, the International Migratory Bird Treaty and others.

4. The protection of our CDCA public lands is flawed.
167 Mitigation - on & off site - is incomplete, ill-defined, and not equitable; conditions and sanctions appear weak, inconsistent and unenforceable for the period of up to 165 years (about 5+ generations.)

5. Protection of humans, including those in Mexico, appears
168 to be flawed. Impacts from leaks, spills, accidents and human errors as well as leachates and unknown underground migration of toxins, etc for up to 165 years are not fully analyzed. The impacts from in-transport accidents are not presented.

6. The provisions for holding current and/or future
169 proponents responsible and accountable are flawed. Ad infinatum.

170 In Summary:

1. The Draft EIS/EIR does not appear to be in full compliance with applicable laws
2. Furthermore, a Supplemental will not correct the flawed concept and/or project
3. The "no action" alternative should be thoroughly reviewed
171 because the need for this project in the CDCA dump program has not been demonstrated.

RESPONSE TO COMMENT LETTER RECEIVED FROM HARRIET ALLEN (CONTINUED)

Response to Comment No. 166

The requested information is provided in Chapter 4 of this EIS/EIR. This EIS/EIR is in compliance with NEPA and CEQA and adequately demonstrates that the project would be in compliance with all applicable environmental laws and regulations.

Response to Comment No. 167

Chapter 4 of this EIS/EIR presents the mitigation measures that will be implemented to mitigate project-related impacts. These mitigation measures will be conditions of the various permits that will be issued for the proposed project such as the Conditional Use Permit, Solid Waste Facilities Permit, Waste Discharge Requirements, and Authority to Operate. Because the author of the comments did not provide specific examples, no further response can be given.

Response to Comment No. 168

Chapter 4 of this EIS/EIR demonstrates that there would be no project-related environmental impacts to the Federal Republic of Mexico. Please see response to Comment No. 110 for a further discussion of the proposed liner and LCRS and 136 for a further discussion of the potential for leachate migration.

The impacts from rail haul of MSW residue are described throughout Chapter 4 of this EIS/EIR, including descriptions in the following sections; 4.1.3.2, 4.1.6.2, 4.1.7.2, 4.1.8.4, 4.1.12.2, and 4.1.13.2.

Response to Comment No. 169

Current and/or future landfill owners would be held accountable through the conditions contained in permits that would have to be issued for the proposed project to begin operations and through the provision of the legally required financial assurances. For example, the CUP is a legally recorded document that runs with the land. Therefore, the CUP would apply to the proposed project, regardless of who owns the landfill.

RESPONSE TO COMMENT LETTER RECEIVED FROM HARRIET ALLEN (CONTINUED)

Response to Comment No. 170

This EIS/EIR has been prepared in compliance with NEPA, CEQA, and the attendant regulations governing the implementation of NEPA and CEQA. To assure compliance, BLM and the County have retained independent third party consultants to review all of the technical information developed by the Applicant. A supplemental EIS/EIR is not required.

Response to Comment No. 171

The need for the proposed project is described in Section 1.1 of this EIS/EIR. While the economic downturn in Southern California's economy has temporarily reduced the solid waste disposal crisis that was faced by local jurisdictions in the early 1990's, there is still an inadequate future supply of solid waste landfill capacity in Southern California.

The BLM does not have a 'CDCA dump program', and the BLM is not an advocate for any regional landfill. BLM has prepared this EIS and the Eagle Mountain and Bolo Station EISs in response to specific requests from the applicants for these proposed projects. It is BLM policy that landfills not be located on BLM-managed lands. Therefore, before any of these proposed projects can be implemented, a land exchange, in conformance with FLPMA, would be required.

Recommendations:

172 If for some reason/s the project must go forward, the BLM should make sure that

1. A Supplemental EIS/EIR is prepared, and
2. that it shall include, at a minimum, the following:
   a. A finding of need for The Mesquite landfill project as a necessary part of the CDCA waste disposal program.
   b. A finding that The SEIS/EIR is in full compliance with all applicable laws.
   c. Data & analyses that clarify, verify and complete statements and assumptions in the DEIS/EIR.
   d. A finding that stacking unrecycled waste on more than 60 miles of desert surface for a period of up to 165 years is the highest and best use of that section of the CDCA.
   e. An array of royalties, fees, payments and/or land exchanges will have positive benefits to the public land stewardship program.
   f. A finding that proponents and/or successors will be held responsible and accountable for at least 165 years, thru a set of bonds, conditions and stipulations, for all damages to the CDCA and its inhabitants.
3. The The Supplemental EIS/EIR shall be subject to a review of at least 90 days, and that,
4. the merits of the project will be a part of the certifications

Submitted by Harriet Allen, as an individual, and for the Desert Protective Council as Southern Deserts Representative.
3750 El Cuchto Drive Spring Valley Ca 91977

RESPONSE TO COMMENT LETTER RECEIVED FROM HARRIET ALLEN (CONTINUED)

Response to Comment No. 172

This EIS/EIR is in full compliance with NEPA, CEQA, and the attendant regulations governing the implementation of NEPA and CEQA; therefore, a supplemental EIS/EIR is not required and an additional 90 day public review period is not required.

There is no CDCA waste disposal program. The need for the proposed project is described in Chapter 1.1 of this EIS/EIR.

The appropriate findings will be in the BLM Record of Decision and the County of Imperial Board of Supervisors action to certify the EIR and adopt the Findings of Fact, should the proposed action be approved.

This EIS/EIR provides a sufficient level of data and analysis to determine the environmental effects of the proposed project, the significance of those effects, and the mitigation measures required to mitigate any significant effects.

The proposed landfill would only accept MSW that has been processed at a transfer station/MRF to remove almost all recyclable materials. Should the proposed action be approved, the BLM Record of Decision will contain the reasons why the proposed landfill was approved.

The specific details of the land exchange and compensation will all be included in the realty action to convey the BLM lands on-site to the Applicant. The Applicant has agreed to pay a fee to the County of Imperial (termed a "host fee" in this EIS/EIR) to provide a clear financial benefit to the people of Imperial County.

Current and/or future landfill owners would be held accountable through the conditions contained in permits that would have to be issued for the proposed project to begin operations and through the provision of the legally required financial assurances.

ARID OPERATIONS INC.
A GOLD FIELDS GROUP COMPANY

July 6, 1994

Mr. Thomas Zale
Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Reference: Comments to Mesquite Regional Landfill Draft EIS/EIR

Dear Mr. Zale:

Thank you for providing the opportunity to provide comments on the Mesquite Regional Landfill Draft Environmental Impact Statement (EIS) and Draft Environmental Impact Report (EIR).

Arid Operations, Inc. believes that the document is a technically accurate description of the proposed project. We have identified the following issues, however, which could be further clarified:

173 Liner System: Our discussions with technical representatives of public agencies responsible for approval of the liner system have identified a potential misunderstanding concerning the reference to the Mesquite Liner System as "triple composite". This term may be misinterpreted to mean three different composite liners. The technical discussions have led to the conclusion that the term "triple composite" should be replaced with another term such as "three component composite".

174 Public Access: The EIS/EIR should clearly state that waste would be received by contract with originating jurisdictions only (including Imperial County) and that no individual deliveries from the public would be allowed.

175 Agricultural Offset Disposition: The EIS/EIR should clarify that several appropriate options exist for the disposal of agricultural cuttings diverted from burning, including landfilling, use of the cuttings as a cover amendment, transporting the cuttings to a composting facility, or retilling the cuttings back into the soil. The key issue for the offset is that these agricultural cuttings would be diverted from the normal practice of burning.

APPLICANT FOR THE MESQUITE REGIONAL LANDFILL

444 SOUTH 8TH STREET, SUITE B1 • EL CENTRO, CA 92243 • 619/337-5552 • FAX 619/337-9128

RESPONSE TO COMMENT LETTER RECEIVED FROM ARID OPERATIONS, INC., SIGNED BY TIM HALDANE, PROJECT ENGINEER, DATED JULY 6, 1994.

Response to Comment No. 173

Please see response to Comment No. 105.

Response to Comment No. 174

The sentence "MSW residue accepted at the proposed landfill would be received by contract with originating jurisdictions only, and no individual deliveries from the public would be accepted." has been added to this Final EIS/EIR as follows: page S-5, column 2, end of the third paragraph; page 1-3, column one, second paragraph, inserted as the second sentence; and page 2-1, first column, third paragraph, inserted as third sentence.

Response to Comment No. 175

In Section 4.1.8.3, the last sentence of the second paragraph under the heading Proposed Offsets has been revised to read as follows: "The plant material would be hauled to the landfill where it would be used as a cover amendment or landfilled, hauled to a permitted composting facility, retilled into the soil, or otherwise diverted from burning."

176 Offset Sources: Other offset sources (i.e., in addition to the diversion of agricultural cuttings) could be identified by Imperial County. EIS/EIR language should not limit the possibility that other offset sources may also be acquired by the project.

177 Monitoring Well Data: 1993 data should be included in Tables 3.6 and 3.7.

178 Air Quality: Background PM_{10} concentrations should be updated with 1993 data from the Mesquite Mine.

179 Table S-1, Page S-36: The indicated level of significance without mitigation shown for the first four dotted items does not agree with the environmental analysis results described in Section 4.1.8.7. The Table should be corrected in the final document.

180 Where appropriate, or for additional clarity to the public, data provided for the Draft EIS/EIR should be updated with the most recent information. Please call if you have any questions regarding these comments.

Sincerely,

Tim Haldane

Tim Haldane
Project Engineer

cc: Jurg Heuberger- ICPD
R. T. Filler- Arid Operations, Inc.

RESPONSE TO COMMENT LETTER RECEIVED FROM ARID OPERATIONS, INC. (CONTINUED)

Response to Comment No. 176

In Section 4.1.8.4 , the following new sentence has been added to the first paragraph under the heading Proposed Offsets: "Other offset sources could be identified in the future by Imperial County or the Applicant and utilized subject to permits issued by the Imperial County Air Pollution Control District."

Response to Comment No. 177

The Mesquite Mine is not required by local, state or federal regulators to collect data for all of the parameters shown in Tables 3-6 and 3-7. The range of information presented in the tables is the result of sampling by the mine for its own use as background data. Most of these parameters have not been tested for in recent years. Tables 3-6 and 3-7 have been updated in this Final EIS/EIR based on the most recent data for these parameters from the Mesquite Mine. Note that only pH and TDS data are available. Also, there was a recording error for the July 16, 1991 SC and TDS data presented for GF3A on Table 3-7. The numbers were reversed. This error has been corrected in this Final EIS/EIR.

Response to Comment No. 178

The 1993 PM_{10} and O_3 data has been added to the appropriate tables in Chapter 3.0 of this Final EIS/EIR.

Response to Comment No. 179

Impacts from the emission of criteria pollutants by the flare station would be significant unless offsets are obtained per ICAPCD Rule 207 (significance criteria, DEIS/EIR page 4-71, second column, third bullet). By obtaining offsets, this impact would be mitigated to insignificance. The mitigation measure has been reordered in Table S-1 to discuss offsets first and PM_{10} monitoring second.

BLM and Imperial County concur that the typographical error in the Draft EIS/EIR identified by this comment did occur with regard to potential impacts from on-site fuel storage tanks, and Table S-1 has been corrected in the Final EIS/EIR.

Response to Comment No. 179 (Cont'd)

Impacts from uncontrolled LFG escaping into the air would be significant. This impact would be mitigated by collecting at least 80 percent of the generated LFG and destroying or reusing the collected gas. Therefore, no change to Table S-1 is required.

BLM and Imperial County concur that the typographical error in the Draft EIS/EIR identified by this comment did occur with regard to potential impacts from on-site vehicles and heavy equipment, and Table S-1 has been corrected in the Final EIS/EIR.

Response to Comment No. 180

Comment noted. Where appropriate, this Final EIS/EIR has been updated.

DESERT CITIZENS AGAINST POLLUTION
3813 50th Street West * Rosamond, California 93560
805-256-2101 * 805-256-0674 fax

RECEIVED
JUL 11 PM 3:17
EL CENTRO RESOURCE AREA
EL CENTRO, CA.

July 4, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, California 92243

To: G. Ben Koski

From: Jane Melanie Williams

Re: Comments on the Proposed Mesquite Regional Landfill EIR/EIS

Dear Mr. Koski,

After a review of the EIR/EIS on the proposed Mesquite Landfill I have numerous concerns. However, before I enumerate them, I feel compelled to comment on the "non pre-decisional" nature of this document. Peppered throughout this document are numerous instances where the information relied upon for conclusions is not provided for review and numerous instances where the mitigation's are not clearly discussed or described, nor is the discussion of alternatives complete. All that are
181 discussed are alternative sites, there is no discussion of any alternatives that don't include a landfill.

Both the NEPA and CEQA process were initiated to include the public in the decision-making process, yet this document does not provide all the information necessary for the public to be fully informed. For example, the ICAPCD will require a health risk assessment of toxic emissions from
182 the proposed landfill for its permitting process (page 3-91); this is certainly information that our members would like to have access to *before* commenting on the acceptability and completeness of this EIR/EIS. The
183 Appendices are not included for public review, yet are relied upon for numerous conclusions. Moreover, it is not stated where the Appendices are available for review by interested members of the public.

Having reviewed and commented on many EIR/EIS's over the past three years, it is my experience that a certain bias exists among many of the researchers and contractors that prepare such documents. Therefore access to the baseline data and studies are very important to our members.

This document was not prepared in Spanish, yet a definite majority of
184 citizens in Imperial County are Spanish-speaking and in fact, this county has the highest percent of monolingual citizens in the entire state, and is the poorest county in the state. Certainly, this document fails to uphold

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION, SIGNED BY JANE MELANIE WILLIAMS FOR DCAP MEMBERS, DATED JULY 4, 1994.

Response to Comment No. 181

This EIS/EIR presents a broad range of alternatives to the Proposed Action including the No Action Alternative (Sections 2.2.3 and 4.2); alternative landfill sizes and operational characteristics (Sections 4.3, 4.4, and 4.6); alternative landfill sites, including a landfill siting study that considered all of Imperial County (Section 2.4.1.2 and Appendix A-3); and Alternatives Considered but Eliminated from Detailed Analysis including alternative rail haul sites, filling the mine pits, alternative waste management practices, and alternative MSW residue delivery procedures (Section 2.4). The reason that each of the alternatives described in Alternatives Considered but Eliminated from Detailed Analysis was eliminated is provided in that section.

There have been no actions taken by any lead, cooperating, or responsible agency to predetermine the discretionary actions that would have to be taken for the Proposed Action to proceed. The No Action Alternative specifically discusses no landfill at the proposed or alternative site and the discussion of alternative waste management practices describes the feasibility of no landfills in general.

Response to Comment No. 182

As described in the first paragraph of Section 1.7 of this EIS/EIR, the analysis presented in this EIS/EIR are generally conservative. "Best" and "Worst" case analyses were avoided in favor of more balanced "maximum likelihood" analyses. The health risk assessment presented in this EIS/EIR is a maximum likelihood analysis in that it addresses impacts that could actually occur. Therefore, the health risk assessment presented in this EIS/EIR addresses impacts of living for 70 years at the nearest residential area, of camping for 14 days adjacent to the property boundary, and of individuals traveling to and from work five days per week for 40 years on SR 78. Health risk assessments typically address the outdoor exposure of one individual for 70 years at the fenceline of the landfill. The likelihood of one individual being exposed outdoors for 70 years at the fenceline of the proposed site is essentially zero. Addressing this fictitious individual would have grossly overstated the health risks associated with the proposed landfill.

If the proposed landfill is approved by the BLM and County of Imperial, the health risk assessment that is required for permitting will be prepared and made available for public review during subsequent landfill permitting.

Response to Comment No. 183

The appendices to the Draft EIS/EIR for the Mesquite Regional Landfill Project were included for public review. They were available for public review at the Bureau of Land Management Offices in El Centro, Palm Springs, Riverside, and Sacramento; County of Imperial Planning and Building Department Office; and at the 23 libraries identified on the back of the Dear Reader Letter of the Draft EIS/EIR (inside the cover). In addition, the Notice of Completion printed in the Imperial Valley press on May 8, 1994 and posted with the County Clerk, identified that the Draft EIR/EIS was available for review at the aforementioned locations.

Response to Comment No. 184

Several commentors stated that the EIS/EIR should be translated in Spanish. It is not the policy of Imperial County or the Bureau of Land Management to prepare environmental documents in languages other than English and neither NEPA nor CEQA require that environmental documents be translated into a language other than English. In isolated circumstances, federal agencies have voluntarily provided translations or translators. No Federal or State Court has ruled that to comply with NEPA or CEQA a public agency must, as a matter of law, translate environmental documents, agency proceedings, or public notices into a language other than English.

BLM and the County are aware of one California Superior Court ruling that expressly addressed the obligation to translate CEQA documents into Spanish. In El Pueblo Para El Aire Y Agua Limpio v. County of Kings, Kings County Sup. Ct. No. 366045, the Trial Court ruled that, under the circumstances of that case (a community of 40 percent monolingual Spanish speakers), preparing a Spanish translation of an extended summary of the Final EIR for a proposed incinerator "would have been justified." The Court declined "to transform its observation into a blanket requirement or ruling." More generally, courts have consistently concluded that, absent express Constitutional or statutory authority, public agencies need not provide non-English speakers with translation services. Therefore, this EIS/EIR complies with the requirements of NEPA and CEQA, and a Spanish translation is not required.

185 the President's Executive Order on Environmental Justice signed February, 1994, which directs federal agencies to find ways in which to reduce the burden of pollution on poor, minority populations. Surely producing this document in Spanish would have been a helpful initial step in this process and facilitated the involvement of the local affected population in the decision-making process.

186 It is because of these concerns that I term this document "non pre-decisional"; it appears to me that a decision has already been made by the agencies involved regarding this project and that the production of this EIR/EIS is just fulfilling a requirement, not truly an attempt to involve the public in the decision-making process.

We have the following specific concerns:

187 1. Our group was part of a coalition that sued the Department of Interior to force them to designate critical habitat for the desert tortoise, therefore our members take very seriously the protection of that species from further threats to their survival. Landfills tend to attract ravens, which are one the major two factors driving the desert tortoise to extinction. Therefore, I noted with interest the raven mitigation measures proposed for this project. I see no analysis of the potential environmental effects of the proposed use of pyrotechnics on the surrounding environment. Surely, this mitigation measure will have a profound effect on nearby fauna. The specific types of litter fences to mitigate blowing litter are not characterized and "would be developed during landfill operations" (page 2-25). This mitigation measure is very important to our members since is it blowing litter that attracts ravens who then prey on tortoises.

188 2. In the discussion of air quality impacts I see no indication that the data from the EPA study of the sources of particulate matter in the Imperial Valley was utilized or that any cross agency planning has occurred between the EPA and BLM on this issue. The Integrated Border Plan clearly calls for pollution prevention strategies, indeed SEDESOL and EPA have instituted a Pollution Prevention Workgroup to implement such strategies. SEDESOL and EPA are in the process of developing and implementing coordinated efforts to control air pollution in this region and the BLM is out preparing to introduce a new, unmitigable source of air pollution. I suggest that some interagency cooperation needs to take place.

189 3. This project comes under the jurisdiction of both the U.S./Mexico Consultative Mechanism for the Establishment of New Sites and for Existing Sites (June 25, 1992) and the La Paz Agreement (August, 14, 1983). Moreover, Article 2 of the La Paz Agreement states, "The parties undertake, to the fullest extent practical, to adopt the appropriate measures to prevent, reduce and eliminate sources of pollution in their respective territory which affect the border area of the other. Since there are clear alternatives to this project, it is in violation of this international agreement. The impacts to Mexico need to be taken into account and failure to do so is also in direct violation of Executive Order 12114, Environmental Effects

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION (CONTINUED)

Response to Comment No. 185

Based on the conclusions of the technical analysis presented in this EIS/EIR and the project's isolated location, it has been demonstrated that there would be no burden of pollution on local poor or minority communities.

Response to Comment No. 186

There have been no actions taken by any lead, cooperating, or responsible agency to predetermine the discretionary actions that would have to be taken for the Proposed Action to proceed. Also, the extended 90-day public review period, two public scoping meetings (one each in Imperial and Riverside Counties), and two public hearings on the Draft EIS/EIR (one each in Imperial and Riverside Counties), have provided extensive opportunity for public involvement.

Response to Comment No. 187

The proposed landfill site is located in Category III habitat (lowest quality) for the desert tortoise, not in designated critical habitat. Nevertheless, the potential for project-related impacts to the desert tortoise are deemed significant. That is the reason for the mitigation measures identified in this EIS/EIR, which shall be implemented by the Applicant in the event the proposed project is approved. Pyrotechnics may be used as part of strategy to deter ravens. Pyrotechnics and other passive and active bird control measures are used at many landfills and other facilities around the Country with no substantial impact on adjacent species. Litter fences, compacting MSW residue, applying cover at least every 24 hours, disposal in wind-protected cells during high wind days, and litter patrols would control litter from the proposed landfill.

Response to Comment No. 188

The requested coordination did occur. The BLM provided ten copies of the Draft EIS/EIR to the U.S. EPA for their review and comment. The U.S. EPA provided comments on the Draft EIS/EIR (Comment Nos. 124 to 151). They did not provide any comments, positive or negative, on project-related emissions of PM_{10} or ozone precursors.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION (CONTINUED)

Response to Comment No. 189

The No Action Alternative would avoid all impacts associated with the Proposed Action. However, given that the impacts from the proposed landfill would all be mitigated with the exception of visual impacts that would not affect Mexico, cumulative air quality impacts that would only affect areas within about one mile of the project site, and cumulative traffic impacts that would only affect traffic on SR 78 in the vicinity of the proposed site, the No Action Alternative is not the preferred alternative. Copies of the Draft EIS/EIR were provided to the International Boundary and Water Commission who in turn provided copies to SEDESOL. No comments from SEDESOL were received. Also, please see response to Comment No. 188.

The "U.S./Mexico Consultative Mechanism for the Establishment of New Sites and for Existing Sites (June 25, 1992)" is not a treaty or other international agreement of the United States. (See *Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 1993*, Office of the Legal Advisor, United States Department of State (Dept. of State Publication 9433) (June 1993); *International Legal Materials*, Vol. XXXIII, Nos. 1, 2, and 3.)

This comment asserts that "[s]ince there are clear alternatives to this project, it is in violation of [the La Paz Agreement]." The La Paz Agreement specifically defers to environmental review of proposed projects with potential environmental impacts in the border area so that appropriate measures may be considered to avoid or mitigate adverse environmental effects." (La Paz Agreement, T.I.A.S. No. 10827, Art. 7). In this case, the appropriate environmental review is the preparation of an EIS/EIR according to the requirements of NEPA and CEQA.

This comment asserts that the project violates Executive Order 12, 114 (Exec. Order No. 12, 114 (Order), 44 Fed.Reg. 1957 (1979) reprinted in 42 U.S.C. § 4321 note (1988)), because (1) the Draft EIS/EIR fails to take into account impacts to Mexico, and (2) procedures detailed in the Order were violated during project review.

Executive Order 12, 114 does not apply to the proposed project because the proposed federal actions described in Table 1-2 would not result in significant environmental impacts to Mexico as documented in this EIS/EIR and described above.

Abroad of Major Federal Actions, signed on January 4, 1979 which charges federal agencies "authorizing and approving actions encompassed by this Order to be informed of pertinent environmental considerations and to take such considerations into account..." The order sets forth specific procedures which are to be followed, which have not been followed in the environmental process for this project.

190 4. I see no discussion of the recent paper released by Stark and Poppel on liner patency and the numerous factors which lead to liner failure. Some of the key issues are maintaining the proper humidity in the clay portion of the liner. Such concerns and mitigations are not raised in the EIR/EIS. Moreover a discussion of shear forces and their impact on liner patency are also not addressed, yet these are the significant factors that have led to liner failure at other sites. I see no calculation of the forces that are to be exerted on the liners by the weight of the trash, yet this is a crucial factor in liner design and a major factor in their failure. Again, this environmental document inadequately informs the pubic about the specifics of the project and its probable impacts on the environment..

191 5. There is no discussion of the impact of continued groundwater withdrawl and increased withdrawl on the surrounding environment. Continued groundwater pumping will lead to subsidence, which could have a significant adverse impact on the integrity of the landfill.

192 6. There is no discussion of the impacts of long-term landfill degradation from the trash biodegrading or from wind erosion factors. Both factors can reasonably be expected to create significant adverse effects on the environmental conditions by allowing waste to escape into the environment over the long term. This issue should be addressed in the closure and post closure section.

193 7. The applicant does not specify how the closure, post closure, and corrective action financial assurances will be met.

194 8. The conclusion on page 3-23 about liquefaction is troubling since liquefaction can occur even where groundwater is deep. Seismic events and their effect on the proposed landfill pose a great threat both to the liners and to the structural stability of the landfill. Without the background studies and data to review I am at a loss to know what the conclusions in the EIR/EIS were based upon. However, seismic concerns at both Eagle Mountain and Broadwell Dry Lake were misrepresented by the proponents of those facilities, under the auspices of the BLM and their reviewers. Therefore, I would suggest a very close scrutiny of the baseline data and the accompanying conclusions.

195 9. I notice that on page 6-3 there are outstanding Section 7 consultations on threatened species. This again predisposes the outcome of the environmental review. "The Biological Assessment is to be issued by USFWS prior to consideration of project approval by the BLM." This completely ignores the mandated public review and the requirements of

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION (CONTINUED)

Response to Comment No. 190

Please see response to Comment No. 110.

Response to Comment No. 191

Draw-down of ground water and landfill subsidence are addressed on page 4-7, column 2, last paragraph of the Draft EIS/EIR. Impacts were not found to be significant.

Response to Comment No. 192

Erosion of the landfill surface is expected to be very low because all slope areas would be covered with 6 to 12 inches of erosion-resistant rock materials, and the top deck surface would be gravely. Only a small amount of fines would be removed by high winds or infrequent rainfalls after initial placement of these materials. Thereafter, there would be no significant amount of exposed soil.

Erosion control specifications are based on assumptions that the landfill would be located in a dry desert area. Artificial revegetation of the cover surface is not planned. The landfill design includes providing a 6- to 12-inch thick coarse rock on the final slope surface to minimize erosion that could occur due to infrequent rain storms, and the top surfaces would be gravely. Calculations were performed on the rate of soil erosion from the landfill surface using the Universal Soil Loss equation. The amount of soil erosion on the top deck ranges from 0.04 to 0.3 tons per acre per year; the maximum amount of soil erosion on sideslope areas is .83 tons per acre per year. This is well below EPA maximum erosion requirements which would be 2 tons per acre per year. Further, because of the nature of the cover, erosion rates are expected to be lower over time after the small amount of fine material on the cover surface is winnowed away. These calculations were performed and would be reviewed by the RWQCB in accordance with evaluation of the Waste Discharge Requirement application submitted by the Applicant, Arid Operations, Inc.

Estimation of the potential differential displacements which could occur at the landfill top deck and also on the sideslopes is a function of the rate at which MSW residue decomposition occurs. It is estimated that, for a 400-foot-high column of MSW residue, the amount of decomposition settlement which could be expected to occur is about 30 feet. This

Response to Comment No. 192 (Cont'd)

settlement would not be expected to cause large enough differential movements over short distances because similar amounts of decomposition would also occur at adjacent areas. Settlement assumptions would be reviewed during the proposed 100-year landfill life and the results incorporated into final cover design.

The top surface of the landfill would be designed with a rolling terrain and no flat slopes. This would allow drainage of occasional storms to be directed along moderate slopes to protected drainage swales for transport to the landfill slope drainage control systems. This rolling terrain would also help to assure that any settlement which does occur does not negatively affect drainage.

Extensive final cover maintenance is not anticipated due to the arid site conditions and slope erosion protection materials to be provided. The need for slope maintenance would be evaluated by performance of a drainage inspection after each major rain event and before each rainy season. In addition, inspection of final cover would be performed quarterly in connection with environmental compliance reports which would occur during the postclosure period.

Response to Comment No. 193

The County of Imperial and other state and federal agencies will require the Applicant to provide the required assurance through one of the mechanisms established by 40 CFR Subpart G or as required in the future (EIS/EIR, Section 2.1.18). This requirement would be a condition of the Conditional Use Permit. Therefore, it is not necessary to determine the exact method of meeting the required financial assurances prior to completing the environmental review under NEPA and CEQA.

Response to Comment No. 194

Liquefaction during a seismic event can normally be expected to occur in saturated, loose- to medium-dense sands. This condition does not occur at the proposed Mesquite Regional Landfill site. The ground water is more than 140 feet deep throughout the site area. As discussed in Section 3.1.1 and Appendix C of the Draft EIS/EIR, the subsurface materials are very dense to hard (based on shear wave velocities). As a result, liquefaction is not an issue for this site.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION (CONTINUED)

Response to Comment No. 195

The BLM has not approved the Proposed Action. The BLM's decision to approve the Proposed Action, the No Action Alternative, or a different alternative will be documented in a Record of Decision (ROD). The ROD will be based on the environmental information and public comments contained in this EIS/EIR, public comments received during the 30-day public comment period on this Final EIS/EIR, the USFWS Biological Opinion and the SHPO Section 106 review.

both CEQA and NEPA. This is information that our members would like to have before them now in their review of the EIR/EIS.

196 10. I see no effort to include Native Americans in the discussion about archaeological sites. This is a short-coming that should be rectified. There are many sites along the Colorado River that are important to the Basin Tribes and they should be included in this type of discourse, not as an afterthought, but from the very beginning.

197 11. In the mititgation section regarding the desert tortoise, part of the mitigations involve the relocating of desert tortoises. Moving and relocating desert tortoises has not proved to be a viable method of insuring their survival, in fact this method has exacerbated their mortality rate. This needs to be given careful scrunity.

198 12. I noted, with great interest, that financial assurances are not given by the proponent, only that the means would be decided upon at some later date. In light of the 1992 GAO report on the state of financial assurances for closure and post-closure and corrective funds at other landfills across the nation, I feel that this is a subject that should be dealt with at the beginning of the project, not as an afterthought.

Without access to the Appendixes, it is difficult to do a through review of this environmental document. We thank you for your patience in reviewing our comments.

Cordially,

Jane Melanie Williams

Jane Melanie Williams
for DCAP members

cc:

Hannah Bently, DCAP attorney
Michael Lozeau, DCAP attorney
Ambassador Andre Rozenthal, Secretaria de Relaciones Exteriores, Mexico D.F.
Diputado Gustavo Davila, Comision de Ecologia, Legislatura de Baja California
Toxics Assessement Group
Ms. Felicia Marcus, EPA Regional Administrator

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT CITIZENS AGAINST POLLUTION (CONTINUED)

Response to Comment No. 196

Native Americans have been involved in previous consultations under Section 106 of the National Historic Preservation Act for the Mesquite Mine. The Draft EIS/EIR was sent to the following Indian Tribes for their review and comment:

- Colorado River Indians Tribal Chairman;
- Quechan Indians Tribal Chairman;
- Torres Martinez Indians Tribal Chairman; and,
- Campo Indians Tribal Chairman.

Native Americans will be consulted in developing the treatment plan to mitigate impacts to significant prehistoric resources at the proposed site.

Response to Comment No. 197

Relocation of tortoises is preferred to leaving them within the landfill site. Relocation has been required in the past at the Mesquite Mine and American Girl Mine by the U.S. Fish and Wildlife Service, and therefore is expected to be required for the Proposed Action. The proposed project would not impact designated critical habitat, therefore, any incidental loss of tortoises from relocation would not be expected to jeopardize the continued existence of the species. Arid Operations has experience relocating tortoises in connection with the Mesquite Mine. However, no specific studies to determine the success of these relocation efforts has been conducted.

Response to Comment No. 198

Please see response to Comment No 193.

Desert Protection Society

A California Non-Profit, Public Benefit Corporation

73790 El Paseo, Suite B-200 • Palm Desert, California 92260 • Phone (619) 776-6088

July 5, 1994

Richard Marsh
President
Indian Wells

Howard Lloyd
Vice-President
Rancho Mirage

Marian Henderson
Secretary
Palm Desert

Diven Meredith
Treasurer
Palm Desert

199

Bureau of Land Management
1661 South 4th Street
El Centro, CA 92243

Re: MESQUITE REGIONAL LANDFILL

COMMENTS

The Draft EIS/EIR is inadequate for the following reasons:

1. Land Ownership. The Developer is seeking 1,750 acres of U. S. Government land that is necessary for the landfill proposal. AS the Developer has no legal or equitable interest in these 1,750 acres of land, not even an Option to Buy or Lease, it means that this land and its owner, the U. S. Government, is not present or represented as an Applicant in these proceedings. In fact, the U. S. Government, under its regulations, could not be part of the landfill application process as landfills are not allowed on such lands. What this means is:

a) Imperial County and the Developer cannot legally enter into a Development Agreement as California Government Code Section 65865(a) requires the Developer to own the land.

b) The Developer does not have standing to represent the U. S. Government in these proceedings.

c) Imperial County lacks jurisdiction to consider the proposal because 1,750 acres of necessary land and it's owner, the U. S. Government, is not and cannot be part of the application process.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY, SIGNED BY RICHARD MARSH, PRESIDENT, DATED JULY 5, 1994.

Response to Comment No. 199

The development agreement would be finalized and entered into upon completion and approval of the Conditional Use Permit (CUP) by Imperial County and issuance of the Record of Decision (ROD) by the Bureau of Land Management. Such development agreement would apply to lands in which developer has a legal or equitable interest, including those fee lands owned or controlled by developer upon CUP approval and those lands to be acquired by developer by exchange in accordance with the ROD.

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200

2. Train and Truck Impacts. There is no meaningfull discussion of the impacts and mitigation measures from trucks and trains such as noise, odor, earth shaking, air pollution, water pollution from spills or traffic congestion for the populated areas along the route from Los Angeles to the proposed landfill. If the trash source is not to be limited to Los Angeles, then impacts and mitigation measures of all other routes should also be discussed. As an example, if there are to be six trash train trips to the dump daily, that means 12 round trips of three-quarter mile long freight trains:

a) City of Coachella. This City has five street level railroad crossings. Five times twelve means 60 daily traffic tie-ups, each by a three-quarter mile long train.

b) City of Indio. The train tracts go through the center of town adjacent to Indio Boulevard, a main artery. Also, the Blythe Junction, a main intersection for the turn-off to Blythe and I-10, is a street level railroad crossing.

c) Coachella Valley Residential Communities. Desert Emeral Country Club and RV Park adjoins the railroad tract. The residents on the grounds or inside their units are shaken by the passing trains. This proposal means the sudden addition of 12 more long freight trains each day. The railroad also runs adjacent to the Avondale Country Club and the Desert Falls Country Club. The noise and earth shaking is evident in the houses and in the condominiums.

d) Metrolink: Palm Springs and Palm Desert are seeking train stations along the railroad for tourist passengers on Metrolink. The railway tract is single at these points. There is nothing in the EIS/EIR discussing tract time availability.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY (CONTINUED)

Response to Comment No. 200

Traffic on the SP Main Line currently occurs at a level of between 25 and 35 trips at various times during the day and night. The Draft EIS/EIR found that the addition of up to 10 more train trips per day to the existing traffic levels on the SP Main Line would not have a significant adverse impact to conditions along the SP Main Line.

Odor impacts from the transport of MSW-residue containers to the proposed site were found not to be significant on pages 4-105 to 4-107 of the Draft EIS/EIR.

Similar to the noise analysis, the additional ground shaking from 10 more train trips per day would not have a significant adverse environmental affect to residents that live at the Desert Emerald Country Club and RV Park. This conclusion was based on current conditions, which result in ground shaking from between 25 and 35 train trips each day at various times throughout the day and night.

Air quality effects to the Coachella Valley are clearly described on Table 4-16 of this EIS/EIR and on page 4-88 of the Draft EIS/EIR. Please see response to Comment No. 21. Because the proposed project would reduce the release of ozone precursors in the LA Basin and the subsequent transport of ozone through Riverside County and into Imperial County, the release of ozone precursors would not be significant. The projected emission 80 pounds per day of PM_{10} in the Coachella Valley by common carrier trains transporting MSW residue to the proposed site at peak operations would not be significant.

Water quality and other effects from an accident involving a common carrier train transporting MSW residue to the proposed site were found not to be significant on pages 4-146 to 1-148 of the Draft EIS/EIR.

Transportation impacts from the increase in common carrier train trips along the SP Main Line were found not to be significant with the implementation of the mitigation measures defined on pages 4-57 to 4-58 of the Draft EIS/EIR. Also, please see response to Comment No. 42.

The proposed Mesquite Regional Landfill would be available to accept MSW residue from anywhere in the Southern California area. Since the specific source of MSW residue cannot be predicted for the life of the project, this

Response to Comment No. 200 (Cont'd)

EIS/EIR evaluated the impacts of transport of MSW residue from central Los Angeles to the proposed site along the identified rail haul route. This assumption was used in preparing this EIS/EIR for two reasons. 1) It is anticipated that initial volumes of MSW residue would come from Los Angeles. 2) any MSW residue that comes from outside of Los Angeles would have to use a rail haul route that includes most of the proposed rail haul route, and therefore the impacts would be considered by this EIS/EIR. Analysis of environmental impacts of MSW residue transport prior to connecting with the proposed rail haul route would be performed by the originating communities at the time such transport is proposed. Please see response to Comment No. 103.

Further responses to lettered comments are as follows according to the order that they are presented:

- City of Coachella - The Proposed Action would add 10 trips per day to the SP Main Line, including up to 50 delays per day at crossings in the City of Coachella, compared to up to 175 crossing delays under existing conditions.

- City of Indio - Comment noted.

- Coachella Valley residential Communities - Given the number of existing train trips that occur day and night, the addition of ten more trips per day would not be significant.

- Metrolink - Such a project is currently under investigation; however, at this time, it is speculative and therefore was not specifically addressed in the Draft EIS/EIR. Please see response to Comment No. 42.

- Pass Area - Comment noted.

- Inland Empire - The location where MSW residue trains would be loaded is anticipated to be SP's City of Industry Intermodal or Los Angeles Transportation Center (LATC) intermodal. This EIS/EIR evaluates impacts from the LATC because it is further away from the proposed landfill site, along the SP Main Line, than the City of Industry Intermodal.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY (CONTINUED)

Response to Comment No. 200 (Cont'd)

- Because the location and operational characteristics of a staging area in the Colton-Riverside-San Bernardino area cannot be reasonably predicted at this time (in fact, no such facility is proposed), studies of local effects of such a staging area would be speculative and are not considered in this EIS/EIR analysis. The environmental effects of such a staging area would be addressed by the appropriate lead agency if a staging area is ever proposed.

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e) Pass Area. This large increase in freight train traffic will impact the Cities of Banning and Beaumont. The railway parallels Ramsey Street, the main artery of each city.

f) Inland Empire. The loading of six three-quarter mile long freight trains daily with garbage will require a massive train staging area but there is no discussion in the EIS/EIR of this or its location. If the garbage source is confined to Los Angeles, the staging area will undoubtly be there. However, if the garbage comes from other Southern California areas, the staging area will undoubtly be in the Colton-Riverside-San Bernardino area. Loading of six trains daily will require 800 or more garbage trucks coming and going on a daily basis. The impacts and mitigation measures resulting from the traffic congestion, noise, odor and air pollution need to be discussed.

201 3. Financial. Under the proposal performance, promises, control, monitoring and mitigation will depend upon the financial stability and success of a private enterprise. Performance requires people. The Draft EIS/EIR furnishes no way to judge the financial stability of the proposal. There are no Balance Sheets, Income Statements, inter-company agreements, guarantees or other financial imformation. Such information is vital to allow an informed judgment on financial success or to consider the consequence and likelyhood of a business failure.

Negative impacts upon business success include a decreasing trash flow; the 3/31/94 California Supreme Court Case (Waste Management -vs- Palm Springs Re-Cycling Center, Case No. S029150)precluding exclusive franchises on commercial re-cyclables: and the distinct possibility of a cheap south-of-the-border landfill under NAFTA.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY (CONTINUED)

Response to Comment No. 201

Several commentors requested additional economic information regarding the project. The financial stability of the Partnership and its individual members is not relevant to the environmental analysis presented in the EIS/EIR. The Applicant would be required to provide financial assurances for landfill closure, post-closure care, and corrective action according to one of the methods provided under 40 CFR Subpart 6 as described on page 4-158 of the Draft EIS/EIR. These assurances would be conditions of the CUP and the Solid Waste Facilities Permit. These mandated financial assurances would be adequate for the County to close the landfill and maintain it during the post-closure maintenance period, in the event the landfill is forced to close prematurely for whatever reason. If the Applicant is unable to obtain the necessary assurances, there would be no landfill. Please see response to Comment No. 193.

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202 4. Material Recovery Facilities. Trash train-haul projects require garbage sorting stations (MRFs). The California Environmental Quality Act (CEQA) requires environmental impacts be included as part of the project description and discussed. The EIS/EIR fails to include the MRFs' environmental impacts such as noise, odor, traffic congestion, air pollution and water pollution.

203 5. Liner Repair. There is discussion of monitoring for leaks of leachate and poison gas but no discussion of how to repair the damaged liner once leaks have been detected.

204 6. Liner Stability. Stability of the clay strata of the liner requires it remain within certain moisture limits. The clay is mixed and brought within the acceptable limits of moisture before installing. However, there is no discussion in the EIS/EIR of how the correct moisture of the clay will be maintained through the years. If the clay gets too wet, it swells and becomes slippery, undermining the liner stability. If it becomes too dry, remembering garbage creates heat, the clay cracks. This will create air pockets beneath the plastic, a material that is designed for sealing, not weight bearing.

205 7. Tortoises. Impacts upon the desert tortoise and adequate mitigation measures, is such are possible, have not been discussed.

206 8. Monitoring. The monitoring proposal fail to discuss detection and repair of clogged or broken pipes. Also, the number of monitoring stations, considering the vast area, are spaced too far apart for meaningful pollution control.

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY (CONTINUED)

Response to Comment No. 202

Please see response to Comment No. 15.

Response to Comment No. 203

As discussed in response to Comment No. 110, the three component composite liner system proposed for the Mesquite Regional Landfill makes the chance of a leak through the liner very small. This is because of the complementary nature of three separate liner components as part of the composite liner system. As a result, for a release from the landfill to occur it would have to come from a hole located at or near the exact same spot in each component of the liner. Otherwise, each separate liner component would protect against failure in another component.

In the event that a release from the liner system were to occur, extensive leachate and LFG subsurface monitoring systems have been proposed to assure that a leak would be detected long before leachate and/or LFG have the chance to reach ground water. Section 2.1.7.3 of the Draft EIS/EIR describes a series of potential landfill release response strategies. These response activities would occur in accordance with state regulations concerning landfill release response activities and would also occur under supervision of the RWQCB, the CIWMB, and the LEA. The response strategies described in Section 2.1.7.3 of the Draft EIS/EIR are designed to avoid the need to excavate into the landfill in order to directly repair the liner. Corrective action would be funded as described in Section 2.1.18 of this EIS/EIR.

Response to Comment No. 204

Please see response to Comment No. 110.

Response to Comment No. 205

Impacts to the desert tortoise and mitigation measures required to reduce impacts to insignificance are described on pages 4-24 to 4-26 and 4-31 to 4-39.

Response to Comment No. 206

Clogged pipes would not affect the performance of the proposed environmental controls because of the redundant features incorporated into the design as described in response to Comment No. 110.

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207 9. Inflation. There needs to be some provision for increasing the per ton rate paid the County as an off-set to protect against inflation. Also, there needs to be a study and figures released on the increased cost to the County for services that will be impacted by this massive proposal. The projected cost increase should be computed annually over the length of the project.

208 THE APPLICATION PROCESS SHOULD BE PLACED UPON HOLD UNTIL SUCH TIME AS ALL THE NECESSARY LAND AND LAND OWNER_ SHIP IS INCLUDED. THEREAFTER, A SUPPLEMENTAL EIS/EIR SHOULD BE PREPARED TO ADDRESS THE OTHER MATTERS DISCUSSED ABOVE.

DESERT PROTECTION SOCIETY

By Richard Marsh
Richard Marsh, President

RESPONSE TO COMMENT LETTER RECEIVED FROM DESERT PROTECTION SOCIETY (CONTINUED)

Response to Comment No. 207

Payment to the County of Imperial on a per ton basis is not required to mitigate environmental impacts of the proposed project.

Please see response to Comment No. 172.

Response to Comment No. 208

Please see response to Comment No. 172.

EMLOC

EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION

Post Office Box 2000
Indio, California 92202
Telephone: (619) 343-7977

July 6, 1994

Bureau of Land Management
1661 South 4th Street
El Centro, California 92243

Re: *Mesquite Regional Landfill*

Dear Sir/Madam:

By this letter, the Eagle Mountain Landfill Opposition Coalition requests the Bureau of Land Management and the County of Imperial to prepare and distribute for public review and comment a Supplemental Draft Environmental Impact Statement and Environmental Impact Report for the proposed Mesquite Regional Landfill.

EMLOC makes this request for the following reasons:

209 The Draft EIS/EIR finding at S17, titled "Impacts That Cannot Be Mitigated," thoroughly disregards and disrespects the health and welfare of the citizens of the Coachella Valley. That finding states in part: "All alternatives except the No Action Alternative would result in ... cumulatively significant air quality impacts that cannot be mitigated, and cumulatively significant traffic impacts that cannot be mitigated." What an insult to desert residents!

210 A comprehensive air quality impact mitigation plan needs to be developed for municipal solid waste transport-related emissions in the Coachella Valley. That plan should address mitigation of the air quality impacts to the Coachella Valley of the proposed action, as well as mitigation of the cumulative air quality impacts to the Coachella Valley of the proposed action and any other proposed regional desert garbage dumps, including the Eagle Mountain Landfill and Amboy Rail-Cycle proposals. That plan should also address only the reality of the currently available and planned diesel train and truck transport methods; discussion of speculative technologies like rail electrification and alternative fuels is irrelevant to the foreseeable air quality impacts of the Mesquite proposal.

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION, SIGNED BY DANIEL S. ROMAN, CHAIRMAN, DATED JULY 6, 1994.

Response to Comment No. 209

This EIS/EIR specifically describes project-related impacts to residents of the Coachella Valley. The comment that EMLOC feels that cumulatively significant traffic and air quality impacts are an insult to desert residents is noted. Neither of these cumulatively significant impacts would occur in Coachella Valley, but would occur in the vicinity of the proposed landfill site. Please see responses to Comment Nos. 21 and 47.

Response to Comment No. 210

As described in Section 4.1.8 of this EIS/EIR, air quality impacts to Coachella Valley would not be significant; therefore, the requested mitigation plan is not required under NEPA or CEQA. Cumulative impacts would not be significant because the railhaul-related emissions would occur along the SP Main Line and would not be concentrated in any one area, and because the quantity of pollutants emitted would be so small that they would be a de minimus contribution to air pollutants locally, even considering the potential for cumulative air quality impacts from MSW trains traveling to the proposed Eagle Mountain and Chocolate Mountain Regional Landfills.

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Bureau of Land Management
July 6, 1994
Page Two

211 A comprehensive Health Risk Assessment needs to be developed which addresses the health risks posed to Coachella Valley residents by the proposed action. That assessment should address the potential health risks to Coachella Valley residents of the proposed action, as well as the cumulative health risks to Coachella Valley residents of the proposed action and any other proposed regional desert garbage dumps, including the Eagle Mountain Landfill and Amboy Rail Cycle proposals.

212 The "No Action Alternative" is inadequate and unacceptable. A Supplemental Draft EIS/EIR needs to be developed which provides the public with a comprehensive discussion of alternative methods for handling Southern California's garbage. Otherwise, we have no way of making an informed comparison of the environmental consequences of the proposed action with those of other methods of garbage management and disposal.

This discussion should include (but not be limited to) a substantive discussion of source reduction measures, recycling, resource reuse techniques, landfill mining, development of an economic market for recycled materials which would provide manufacturer incentives to use recycled products in the manufacturing process, and municipal composting.

The Draft EIS/EIR fails to address real alternatives to the proposed action or the proposed alternatives, as sought by the California Integrated Waste Management Board in its 1989 California waste management plan for the 1990s. Instead, the Mesquite proposal clings desperately to the antiquated and environmentally destructive practice of landfilling as a primary method of waste management for the next 100 years.

213 The Draft EIS/EIR fails to specifically describe a current, workable rail crossing mitigation plan for the Coachella Valley communities of Coachella, Thermal, and Mecca. This is unacceptable.

A recent article in The Desert Sun cited the City of Coachella as the fourth most dangerous city in the state with regard to passenger vehicle-train accidents at city railroad crossings. The Draft EIS/EIR states that there is currently an average of 28 train trips per day through the Coachella Valley on the Southern Pacific rail line. The proposed action at maximum capacity would add 10 additional train trips to that number, increasing the current average train traffic flow through the Coachella Valley by 36 percent. Add to that the projected number of 12 trains per day from the proposed Eagle Mountain Landfill, and the train traffic increase through the Coachella Valley resulting from municipal solid waste transport increases by an astonishing 79 percent.

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 211

As discussed in Section 4.1.8 of the Draft EIS/EIR, a comprehensive risk assessment was performed for the proposed Mesquite Regional Landfill site area. The risk assessment evaluated potential impacts from air toxics at the landfill site boundary. The risk assessment for the proposed Mesquite Regional Landfill site represents maximum exposure conditions for MSW residue and toxics from LFG. Since this risk assessment indicates that site exposure levels would be much less than EPA and SCAQMD risk thresholds, exposure levels along the rail haul route would be insignificant. This is confirmed by the evaluation, also contained in Section 4.1.8, of the potential odors which could come from the trains as they travel along the rail haul route. The analysis determined that potential odors from the trains were in the parts per trillion range based on low LFG generation rates at that time and on a significant dilution factor as any odors move away from the train. These odors would be at least 900,000 times less than the odor threshold. No risk of toxics would occur from emissions from trains at these very low levels. An overall evaluation of potential impacts of rail haul is contained in the Health and Safety section and the Transportation section of the Draft EIS/EIR.

Response to Comment No. 212

Please see responses to Comment Nos. 164 and 181..

Response to Comment No. 213

Please see responses to Comment Nos. 70. This EIS/EIR is in full compliance with NEPA, CEQA, and the attendant regulations governing the implementation of NEPA and CEQA; therefore, a supplemental EIS/EIR is not required.

Such locomotive garbage transport through the City of Coachella could result in the City's earning the dubious distinction of being "Number One in the State for Most Dangerous Rail Crossings." No, thank you.

A Supplemental Draft EIS/EIR that includes a rail crossings mitigation plan is clearly warranted and necessary. This plan should address the proposed action individually, as well as the cumulative transportation impacts of the proposed action and any other regional dump proposals being considered which would haul garbage through the Coachella Valley.

214 Also, the major increase in train traffic through the Coachella Valley that would be caused by the proposed action will subject the sizable number of Valley residents who live or work in the vicinity surrounding the rail corridor to a significantly increased daily exposure to train-generated noise pollution. This unwelcome encroachment would be very disruptive to our communities, and is unacceptable. An effective train noise-pollution mitigation plan needs to be developed and distributed for public review and comment.

215 Coachella Valley cities have chosen a number of potential sites within the Valley for a transfer station/Materials Recovery Facility (MRF). It is conceivable that any such MRF could be used in conjunction with the proposed action. Since MRFs are considered by the Draft EIS/EIR as an integral component of this waste by rail proposal, and since, according to the DEIS/EIR, a "number of transfer station/MRFs are expected to be built in the future by Southern California communities," and since one of the proposed project's partners, Western Waste Industries, operates MRFs in Southern California, there is no reason whatsoever that the DEIS/EIR should not at the very least provide the public with a comprehensive overview of environmental impacts and consequences that accompany the construction and operation of a MRF. These impacts would most certainly include concerns about odor, traffic, noise, air quality, hazardous materials, leachate control, and air-borne pathogens, to name a few.

The DEIS/EIR states at Section 2.1.8.1, p.2-56: "Because it is not possible to identify the location, construction, and operation characteristics of future transfer station/MRFs throughout Southern California, the environmental impacts of these facilities cannot be predicted in this EIS/EIR." The reality, however, is that potential MRF locations in the Coachella Valley have been identified (that information can be obtained from the Coachella Valley Association of Governments), and construction and operation characteristics are available (MRFs have been constructed and are operational in Southern California). Therefore, environmental impacts of these facilities can and must be predicted in this EIS/EIR. A Supplemental Draft EIS/EIR is required.

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 214

Noise impacts from common carrier trains hauling MSW residue to the proposed landfill site would not be significant and described on page 4-62 of the Draft EIS/EIR.

Response to Comment No. 215

MRFs are being planned and constructed in numerous jurisdictions to comply with the requirements of AB 939. These facilities will be constructed regardless of whether the proposed Mesquite Regional Landfill is constructed or not. Please see response to Comment No. 15.

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Page Four

216 Participants in the Public Scoping Meeting held in Indio on May 28, 1992, asked for a background check of the environmental compliance record of each partner in the proposed action, to be included in the DEIS/EIR. That important information appears to be absent from the current document. Please include this information in the Supplemental Draft EIS/EIR.

217 The foregoing Draft EIS/EIR requests, responses, and concerns by EMLOC are merely a sample of our individual and collective concerns about the proposed Mesquite Regional Landfill. They specifically focus on some of the major environmental impacts that would directly affect our home, the Coachella Valley, as a result of the proposed action. Our concerns about this proposal are by no means limited primarily to waste transport issues; in fact, this letter barely scratches the surface of our trepidation regarding this proposed megadump.

We are equally concerned with a whole host of other issues and questions raised by this proposal, including without limitation: groundwater resources, biological resources, mineral resources, land use, and public planning.

Unfortunately, the irresponsible practices of the waste industry and the equally irresponsible, publicly unrepresentative practices of the Bureau of Land Management and the Department of the Interior regarding solid waste disposal, the megadump syndrome, and sewage sludge dumping, have made it virtually impossible for us as concerned citizens to devote to the Mesquite proposal the degree of resources and scrutiny necessary to properly evaluate a proposal of this magnitude.

EMLOC is currently engaged in litigation against the County of Riverside as a result of the approval by the Riverside County Board of Supervisors of the proposed Eagle Mountain Landfill. We are also involved in efforts to stop the dumping of urban sewage sludge in our communities and on Native American lands near our communities.

218 (A discussion of whether or not urban sewage sludge would be accepted at the proposed Mesquite Landfill should be included in the Draft EIS/EIR.)

We are also networking with a growing number of concerned residents from throughout the California desert who have taken a stand to protect the quality and way of life that are threatened by the multitude of "regional" municipal, hazardous, nuclear, and sludge dumps that are either proposed or operational. And as if that's not enough, most of us have full-time employment obligations.

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 216

Several commentors requested information regarding the environmental compliance record of each of the entities that constitutes the partnership that is proposing the project. Other commentors submitted news stories or other information concerning incidents involving entities of the partnership.

The California Supreme Court has noted that "[b]ecause an EIR cannot be meaningfully considered in a vacuum devoid of reality, a project proponent's prior environmental record is properly a subject of close consideration in determining the sufficiency of the proponent's promise in an EIR." (*Laurel Heights Improvement Assn. of San Francisco, Inc. v. Regents of the University of California* (1988) 47 Cal.3d 376,420 [253 Cal.Rptr. 426].) The court added:

> "[i]n balancing a proponent's prior shortcomings and its promise for future action, a court should consider relevant factors including: the length, number, and severity of prior environmental errors and the harm caused; whether the errors were intentional, negligent, or unavoidable; whether the proponent's environmental record has improved or declined; whether he has attempted in good faith to correct prior problems; and whether the proposed activity will be regulated and monitored by a public entity."
>
> (47 Cal.3d at 420 [253 Cal.Rptr. 426].)

In this case, the following three entities: Gold Fields Mining Corporation, Western Waste Industries, and SP Environmental Systems would have an ownership interest in the landfill project. Arid Operations Inc., a wholly owned subsidiary of Gold Fields, and Gold Fields are the proponents and Arid is the applicant seeking to obtain permits for and operate the landfill. If the project is approved, Arid Operations will be responsible for ensuring that the mitigation measures identified in the EIS/EIR are carried out. Accordingly, the environmental compliance record of Arid Operations (and Gold Fields as its corporate parent) is particularly relevant to the project.

Western Waste and SP Environmental Systems would not be responsible for design, construction, and operation of the landfill. Moreover, Western Waste and SP Environmental Systems would not

Response to Comment No. 216 (Cont'd)

be responsible for carrying out the mitigation measures identified in the EIS/EIR. Accordingly, their environmental compliance records assume less importance than those of Arid Operations and Gold Fields. Nevertheless, responses have been made regarding specific issues raised by commentors about Western Waste and SP Environmental Systems.

In light of the Supreme Court's directive to consider the environmental record of the project's proponent, the Applicant provided the following information regarding the project proponent, Gold Fields Mining Company and its wholly-owned subsidiary, Arid Operations Inc. This information has been independent reviewed and verified by the County of Imperial.

It should be emphasized that the mitigation measures identified in the EIS/EIR apply to the landfill operator, and not to the other members of the partnership. For example, Arid would be required to ensure that a clean-up crew is available 24 hours per day to assist railroad and local personnel in the event of an MSW spill from a train. (Draft EIS/EIR, p. 4-151.) In other words, the County and BLM would look to Arid to carry out the mitigation measures identified in the EIS/EIR and its Mitigation, Monitoring and Reporting Program. As a result, the County and BLM regard the environmental compliance record of Gold Fields and Arid Operations as the primary consideration.

Gold Fields' Environmental Record

BLM and the County have extensive experience with Gold Fields Mining Corporation, the parent company of Arid Operations. Gold Fields developed and operated the Mesquite Mine, which is located on the project site, from 1980 to 1993 when Gold Fields sold the mine to Santa Fe Pacific Gold Corp.

In the process of developing and operating the Mesquite Mine, Gold Fields acquired approximately 50 local, state, and federal permits (excluding building permits) and an additional 80 permit amendments and regulatory approvals from responsible regulatory agencies.

During Gold Fields' operating history at the Mesquite Mine, infrequent upset or unusual conditions did occur at the Mesquite Mine which required correction in order to maintain compliance with the operating permit conditions. At no time did the Gold Fields operations at the Mesquite Mine result in any curtailment or suspension of operations, fines, denial of

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 216 (Cont'd)

subsequent permits, or other sanctions against the company or its employees; and in no circumstance did the upset or unusual conditions result in danger to the public or lasting environmental damage.

During Gold Fields' operating history at the Mesquite Mine, infrequent events which resulted in minor containment breeches for heap leaching cyanide solutions were resolved by treating the affected area, by immediate soils removal or solution neutralization, and by constantly improving design and operating practices to prevent reoccurrence.

Finally, although infrequent exceedences of California ambient PM_{10} air quality standards were usually demonstrated by wind direction and multiple monitoring stations to be a result of off-site effects, Gold Fields maintained various programs to minimize on-site PM_{10} contributions by upgrading point source dust suppression systems, by installing a cover dome over the coarse ore stockpile, and improving water truck fleets and application techniques.

While operation of a gold mine is different from a regional landfill, four environmental issues are specifically relevant:

1. Land use at the site,
2. Protection of ground water,
3. Protection of air quality, and
4. Protection of the surrounding environment.

Gold Fields' record of compliance with BLM Plans of Operation and Imperial County Conditional Use Permits demonstrates its ability to strictly adhere to the land use restrictions outlined in the Mesquite Regional Landfill EIS/EIR. The responsible operation of gold ore cyanide leaching facilities under the guidance of RWQCB Waste Discharge Requirements at the Mesquite Mine has demonstrated Gold Fields' ability to properly operate the lined containment and monitoring systems proposed for the Mesquite Regional Landfill. Gold Fields' efforts to protect air quality in the high tonnage operation at the Mesquite Mine were regulated by the ICAPCD, demonstrating that the Applicant has the ability to operate a large volume operation while maintaining air quality at the Mesquite Regional Landfill.

Response to Comment No. 216 (Cont'd)

Protection of the surrounding environment was regulated by all of the above major permits, as well as others, including those enforced by the Imperial County Department of Health Services, Imperial County Department of Public Works, and Caltrans. On occasion, for example, birds would fly over the site, land, and succumb to the dilute cyanide solutions in use at the mine. Gold Fields worked diligently to minimize the access to the cyanide solution by a number of methods. By covering the nine acres of solution ponds with an innovative floating pond cover, evaporation of water and reagents was eliminated while preventing access by the birds. By replacing the heap leach sprays with drip irrigation lines, evaporation was further reduced while minimizing exposure to the birds. Another example was a program developed with the BLM to protect the desert tortoise, even before the reptile was listed as threatened by the U.S. Fish and Wildlife Service. Gold Fields has demonstrated its ability to operate the Mesquite Regional Landfill while minimizing impacts to the surrounding environment.

Gold Fields environmental compliance efforts were fortified by an internal Corporate Environmental Compliance Program applicable to all Gold Fields operations, which identified specific responsibilities for each member of management, and in turn instilled an environmental awareness and responsibility in each Gold Fields and contractor employee. The success of the overall program is evidenced by the following awards bestowed upon the Mesquite Mine.

> United States Department of the Interior, California Desert Conservation Area "Certificate of Appreciation" presented to Gold Fields Operating Company-Mesquite by Donald Paul Hodel, Secretary of the Interior. The award reads "In recognition of your sensitivity in mitigating impacts on the natural and cultural resources of the California Desert Conservation Area," June 19, 1988.
>
> Finalist in the national "1992 Environmental Leadership Award" sponsored by DuPont/Conoco Mining Services.

In 1977, Gold Fields Mining Corporation (GFMC) acquired property in Ortiz, New Mexico. GFMC mined for gold on the property until 1987. As is common in the mining industry, GFMC placed the rock overburden in piles on the site. During its operation of the Ortiz site, GFMC complied with all

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 216 (Cont'd)

applicable permit conditions and regulations, and received only one notice of violation from regulatory authorities.

The single notice was issued as a result of Gold Fields' efforts to avoid overflow into an arroyo from a catchment area containing seepage from mine tailings by pumping the seepage to a lined pond area. The potential overflow was caused by several days of heavy rains. The State of New Mexico determined that even though the action was reasonable, the company should have received prior authorization since this emergency response was not specifically provided for in the approved permit.

In June 1990, GFMC sold the Ortiz property to Lac Minerals and Pegasus Gold. As a condition of the sale, Lac Minerals and Pegasus Gold agreed to comply with all applicable regulatory and remediation requirements necessary to assure the continued environment integrity of the site.

Subsequent to the sale of the property, surface water draining through the overburden piles drew out naturally occurring acid from the waste rock, resulting in a condition referred to by the mining industry as "acid rock drainage." In accordance with the agreement with GFMC, Lac and Pegasus immediately responded to the drainage problem.
Although the various factors that contributed to the generation of acid rock drainage at the Ortiz property are not thoroughly understood, the condition has been contained and is being remediated. The condition does not present a threat to public health or to the environment. Regulatory authorities have not issued any violation notices in connection with the condition.

In July of 1994, a citizens group in Santa Fe County, New Mexico filed a complaint alleging certain violations of the Clean Water Act and the Resource Conservation and Recovery Act by Lac, Pegasus, and Gold Fields. The group asserted that ongoing efforts by the parties to remediate the site under a Discharge Plan approved by the New Mexico Environmental Department were inadequate. Gold Fields is seeking dismissal of the claims.

EMLOC

Bureau of Land Management
July 6, 1994
Page Five

Needless to say, we feel besieged by these waste proposals and projects in our desert. However, we are increasingly determined to keep them out.

Very truly yours,

EMLOC
Eagle Mountain Landfill Opposition Coalition

By: Daniel S. Roman
Daniel S. uRoman, Chairman

DR:mw

RESPONSE TO COMMENT LETTER RECEIVED FROM EAGLE MOUNTAIN LANDFILL OPPOSITION COALITION (CONTINUED)

Response to Comment No. 216 (Cont'd)

Western Waste Industries' Environmental Record

Western Waste Industries' (WWI's) operations at its landfills (i.e., El Sobrante, California; Texarkana, Arkansas (closed); Nassan County, Florida; Conroe, Texas (2); New Boston, Texas; and Livonia, Louisiana) have been without material incident, except as discussed below for the Hoot Landfill in Arkansas.

WWI's Hoot Landfill in Arkansas was the subject of a series of Notice of Violations issued by the Arkansas Department of Pollution Control and Ecology (ADPCE) from 1991 through 1993, which resulted in the 1993 rejection of a permit application to construct Phase 4 of the Hoot Landfill. WWI has recently entered into a settlement agreement with the ADPCE concerning the Hoot Landfill, which commenced operations in 1973. The settlement, which was entered into without admission of liability, terminates the regulatory proceeding and establishes a program that includes the construction of leachate extraction wells, installation of a cap system, and implementation of a leachate and ground water monitoring program. To ensure these programs are carried out by WWI, an escrow account, funded by WWI, has been established. The ADPCE will allow WWI to proceed with the processing of its application to open Phase 4 of the landfill should WWI still desire to do so.

SP Environmental System's Environmental Record

SP Environmental Systems, Inc. is a consulting firm offering engineering and environmental services. The firm has never been found to be in violation of any environmental regulation and has never had an environmental accident.

Response to Comment No. 217

Comment noted.

Response to Comment No. 218

Please see response to Comment No. 36.

July 5, 1994

Thomas Zale
Bureau of Land Management
1661 South 4th St.
El Centro, Ca. 92243

RE: 2000 Mesquite Landfill (C-067.00)

There are several aspects of the proposed Mesquite Landfill that concern me. These items do not seem to be fully addressed in the EIR.

219 1. The proposed site appears to have major and minor washes running through the site. How are these to be addressed?

220 2. The site has iron wood trees on it. How are these to be protected? If the method of protection is the same as the Golfields Mine, how successful have the efforts been?

221 3. The EIR indicates that the removal of desert vegetation will have a "Not Significant" impact on the area. I do not see how removing vegetation cannot have a significant impact on an area.

222 4. It appears that the air quality would worsen in Imperial County due to the additional trains and trucks. What is being done to mitigate this, if the state mandates no burning of agricultural waste?

223 5. The EIR addresses that there would be no local MSW residue trucks on weekend during October 1st to May 31st. What happens to the local MSW collected during those periods? What impact will the out-of-county trucks have during those periods?

224 6. The EIR does not appear to guarantee that trucking of out of county waste to the proposed site will not occur? What impact will there be if trucking out-of-county waste to the site occurs?

225 7. Why is the loss of 1750 acres of federally-owned land designated for recreational purposes considered not significant when the federal government has restricted more land?

226 8. What guarantees exist to ensure that there are no inactive fault lines that might become active as happened in the LA area?

227 9. The visual impact (fig. 4-19) of looking at the "mounds" for the next hundred years has not been addressed. Why should we have to view and have such sites here?

RESPONSE TO COMMENT LETTER RECEIVED FROM LEE H. HINDMAN, DATED JULY 5, 1994.

Response to Comment No. 219

The stormwater that currently flows across the site would be collected and conveyed around the proposed landfill and back to the same washes, but downstream of the site, as described on pages 3-26 to 3-31 of the Draft EIS/EIR. Please see response to Comment No. 53 regarding the ability of the proposed drainage facilities to accommodate expected stormwater flows.

Response to Comment No. 220

There is no federal, state, or local requirement to protect ironwood trees from development, only from unpermitted collection in natural areas. Therefore, impacts to these trees would not be significant. Because the trees on-site would be destroyed by landfill construction activities, this EIS/EIR provides the opportunity for BLM to salvage plants for relocation to other areas off-site. In addition, the Applicant may provide the public with an opportunity to salvage on-site plants prior to construction. Please see Draft EIS/EIR page 4-31, second column, No. 1 under Vegetation and Sensitive Wildlife Habitat. In the past, salvage and replanting in conjunction with the Mesquite Mine has been successful.

Response to Comment No. 221

The vegetated areas that would be disturbed by the proposed project represent a very small percentage of similar vegetation communities that occur in the project vicinity and in the Colorado Desert as a whole. As such, the project area is not considered a significant portion of the available plant community. Undisturbed adjacent areas throughout the region provide similar habitat for plant species. Because the proposed project would be located in plant communities that are widely distributed, it would not significantly reduce the overall species diversity or population of any plant species in the Colorado Desert. Based on the types of vegetation communities and species represented, and the location of the project site in the context of the Colorado Desert, proposed activities would not result in significant impacts to: (1) vegetative communities restricted in distribution, (2) core habitats, or (3) buffer zones.

Response to Comment No. 222

Offsets are required to offset stationary sources by ICAPCD Rule 207. Rule 207 does not apply to mobile sources such as trucks and trains. To reduce impacts from mobile source emissions, the following mitigation measures are required:

- On-site vehicles shall be routinely maintained;
- Implement CARB/EPA required air pollution controls for mobile sources;
- Utilize only low sulfur fuels approved for use in the State of California and Imperial County by CARB;

Please see response to Comment No. 52 for a discussion of additional emission reductions and offsets that would be provided as conditions of the CUP.

ICAPCD Rule 207 requires offsets for stationary sources which exceed 137 lbs/day of NO_x, ROG, SO_x, PM_{10}, and CO. If agricultural burning were to be banned as an offset, then offsets would be obtained from other sources, subject to ICAPCD approval. For example:

- Existing stationary sources could be equipped with more effective air pollution controls to create emission reduction credits.
- Conversion of engines of Imperial County public or certain private vehicles so that they would operate using cleaner fuels.

Response to Comment No. 223

There is no proposal to truck MSW from Imperial County to the proposed landfill at this time. It is likely that MRFs constructed by the County and/or Cities would have adequate surge capacity to store the MSW residue until potential traffic impacts can be avoided. This issue will have to be addressed in detail if it is decided that MSW residue from Imperial County should be disposed at the proposed landfill. Emergency trucking on winter weekends on SR 78 would not be significant for the same reasons emergency trucking on other roads would not be significant. Please see EIS/EIR Section 4.1.7.2.

RESPONSE TO COMMENT LETTER RECEIVED FROM LEE H. HINDMAN (CONTINUED)

Response to Comment No. 224

Trucking of MSW residue from outside of Imperial County would only be allowed from Imperial County and in the event of a major interruption of rail service. This would be a condition of the CUP.

Response to Comment No. 225

The loss of the existing public recreational uses on-site would be offset by the public recreational opportunities that would be created when BLM obtains ownership of the private lands offered for exchange and at least 3,657 acres of compensation lands located in the Chuckwalla Bench ACEC.

Response to Comment No. 226

The recent Northridge Earthquake was a "blind thrust" type fault which occurred deep below the ground surface. This type of fault occurs in compressional tectonic regimes resulting from the pressing together of tectonic plates, in this case the North American and Pacific Tectonic plates. The constant geologic pressure of this compressional regime results in a high degree of seismic activity, like that which occurs in the Los Angeles Basin area. That area also contains very thick, young alluvial materials, which makes any faults contained in the older basement rock difficult to identify.

The proposed Mesquite Regional Landfill site, by contrast, is located in a transverse/expansional tectonic regime. This type of a regime does not create the type of geologic pressure in the site area that occurs in the Los Angeles Basin area. As a result, the blind thrust type faults which occurred in the Northridge Earthquake would not occur in the Mesquite site area. Further, the very thin alluvial materials located in the Mesquite site area make it much easier to identify potential faults. As described in the DEIS/EIR, an extensive investigation of the site area has been performed with the determination that no Holocene faulting exists within nine miles of the proposed landfill.

Response to Comment No. 227

The visual impacts of the proposed landfill are addressed in Section 4.1.11 of this EIS/EIR. The impacts would be significant and they cannot be mitigated. If the proposed landfill is approved, the BLM and the County of Imperial will explain why they chose to approve the proposed project despite the significant and unmitigated visual impacts in the Record of Decision and Statement of Overriding Considerations, respectively.

228 10. Imperial County's objectives (1.1.4.2) in the EIR appears to nave changed. There is no real plan by Imperial County or Mesquite to allow to local MSW into that site. It appears that the County's only objective is money. Has the EIR been unbaised in that regard? Why are the true objectives of the County not included?

229 11. Again, the EIR addresses (2.1.4.7.) highway traffic. If the Mesquite operation is allowed to receive any out of County trash by truck the upset will be significant. I feel that the EIR should state NO out-of-County trash can be imported by truck.

230 12. The economic gain to Imperial County appears to be the County's big desire. What percentage of Goldfield's employees live in Imperial County? What percentage of their dollars are spent here?

Thank you for your cooperation in this matter.

Respectfully,

Lee H. Hindman
P O BOX 1177
EL CENTRO CA 92244

RESPONSE TO COMMENT LETTER RECEIVED FROM LEE H. HINDMAN (CONTINUED)

Response to Comment No. 228

The County of Imperial's objectives have not changed. The proposed site would be capable of accepting MSW residue from Imperial County should the elected officials in Imperial County decide to contract with the Applicant. The objectives of the County, described on page 1-6 of the Draft EIS/EIR, include the consideration of the economic benefits that would be produced by a regional landfill.

Response to Comment No. 229

This EIS/EIR states that MSW residue would only be accepted by train with the following two exceptions: 1) in the event Imperial County chooses to dispose of its MSW at the proposed landfill and 2) in the event of a major interruption of rail service on the SP Main Line.

Response to Comment No. 230

Based on 1993 employment at the Mesquite Mine, Imperial County residents accounted for approximately 67 percent of the employees at the Mine (Mesquite Mine Ninth Annual Report of Mining Activities, March 1994). Based on the regionalized input/output model of Imperial County's economy described in Appendix H of this EIS/EIR, it is expected that no less than approximately 38 percent of after-tax wages paid to landfill employees would be spent in Imperial County.

2000
Mesquite
Landfill

Imperial Valley Press

NORTH COUNTY OFFICE
135 S. Plaza • Brawley, CA 92227

J.R. Fitch
President, Editor and Publisher

RECEIVED
EL CENTRO RESOURCE AREA
EL CENTRO, CA.

U.S. Bureau of Land Management
1661 S. 4th St.
El Centro, CA 92243

Re: draft environmental impact report
Mesquite Regional Landfill

To whom it may concern:

231 I have no comment on the draft EIR for the Mesquite Regional Landfill. I would appreciate, however, a copy of the final environmental impact report when it is completed.

Thank you.

Cordially,

P. A. Rice

EL CENTRO RESOURCE AREA - BLM				
RTE	ACT	OFFICE	INITIAL	DATE
		AREA MANAGER		
		SUPV. ORP		
		CHIEF, ADMIN.		
		CHIEF, RPD		
		CHIEF, RANGER		
		FILE		

(619) 344-1266 P.O. BIN 791 BRAWLEY, CA 92227 FAX (619) 344-1383

RESPONSE TO COMMENT LETTER RECEIVED FROM IMPERIAL VALLEY PRESS, SIGNED BY p. A. RICE, NO DATE.

Response to Comment No. 231

Comment noted.

EnviroQual

2000
Mesquite
Landfill

G. Fred Lee & Associates
27298 E. El Macero Dr.
El Macero, California 95618-1005
Tel. (916) 753-9630 • Fax (916) 753-9956

June 7, 1994

Thomas Zale
Bureau of Land Management
1661 So. 4th Street
El Centro, CA 92243

Dear Mr. Zale:

Please find presented below my comments on the draft Environmental Impact Statement/Environmental Impact Report for the proposed Mesquite Regional Landfill. You may recall that on March 26, 1994 I sent you a set of materials devoted to landfills and groundwater quality protection issues in response to a request by Christina Anderson, Manager, Environmental Planning for the Butler Roach Group, Inc. I requested that those materials be made part of the record for this EIS/EIR. I will be referring to them as part of this discussion and as back up materials for this discussion on the adequacy of the draft EIS/EIR in describing the public health and environmental impacts of the proposed landfill. I have enclosed several additional papers and reports that Dr. Jones-Lee and I have developed over the past couple of months that are pertinent to the permitting of the proposed Mesquite Regional Landfill. They should also become part of the record that is available to the public in connection with the permitting of this landfill.

This review has focussed on the highly significant deficiencies in this EIS/EIR's description of the potential impact of the proposed landfill on the groundwater resources in the region. Failure to discuss other deficiencies in this EIS/EIR does not mean that they are not significant.

Abstract

232 On page two (unnumbered) of the Abstract in column one, paragraph three it is stated that the design of the landfill includes the use of *"a 'triple composite' liner on the bottom..."* That statement is incorrect. It appears that the authors of this section do not understand common terminology used to describe composite liners for landfills. In the following paragraph it is stated,

> *"The Proposed Action incorporates mitigation measures such that most impacts to the human environment would not be significant."*

233 That statement is not accurate; there will be significant adverse impacts on the groundwater resources in the vicinity of the landfill due to the inability of the liner system to collect leachate that will be generated in the landfill. Overall, the abstract does not reliably describe the
234 potential impacts of the proposed landfill and therefore has not complied with federal and state regulations governing EIS/EIR development.

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES, SIGNED BY G. FRED LEE, PH.D., DATED JUNE 7, 1994.

Response to Comment No. 232

Please see response to Comment No. 105.

Response to Comment No. 233

Please see response to Comment No. 110.

Response to Comment No. 234

The abstract does reliably describe the impacts of the Proposed Action.

Executive Summary

On page S-1, column two, first paragraph it is stated,

"The municipal solid waste (MSW) that has been sorted to remove recyclable and hazardous materials, (MSW residue)..."

235 That statement is inaccurate. The MSW will not be free of hazardous materials. The sorting will remove some of the hazardous materials, not all of it. The wastes that will be deposited in this landfill will contain significant amounts of hazardous chemicals that are detrimental to public health and the environment. It is well-known to those who understand the chemical nature of municipal solid waste that there is no way that a municipal solid waste can be made non-hazardous with respect to it containing no hazardous chemicals. Further, as discussed in the enclosed discussion of the impacts of landfills on public health and the environment, even if all hazardous chemicals could be prevented from entering the municipal solid waste stream that is deposited in the landfill, the amounts of non-hazardous chemicals present in MSW leachate that will be generated in this landfill will be such that small amounts of this leachate will render a groundwater contaminated by it unusable for domestic water supply purposes.

236 Page S-5, first column, fourth paragraph again misrepresents the situation with respect to managing hazardous materials. Contrary to the statement made, the sorting and processing will not remove all hazardous materials from the wastes that will be deposited in the landfill.

237 Page S-5, second column, third paragraph, it is important to point out that simply meeting or even exceeding to a small degree federal, state and county standards regarding design, construction and operation of a landfill does not ensure public health and environmental protection. The current regulations at the federal, state, and local level are not designed as typically implemented to protect the public health and environment for as long as the wastes are a threat; they simply postpone when problems occur.

Page S-20, Table S-1 discusses the impacts of the proposed landfill on water resources where it states,

"• Potential degradation of ground water quality as a result of MSW leachate or LFG seepage"

238 states that the precipitation onto the landfill that enters the landfill will be collected in a leachate collection/removal system and therefore result in a level of significance with mitigation as Not Significant (NS). Without mitigation it is listed as Significant (S). This statement is fundamentally in error and improperly presents the ability of the mitigation (leachate collection removal system) to function effectively to collect all leachate that will be generated within the landfill for as long as the wastes represent a threat. As discussed in the enclosures, including those previously submitted to you (T. Zale), municipal solid waste in a landfill of this type will be a threat to groundwater resources, public health and the environment forever. To believe that in a triple composite liner, if one were constructed, which contrary to the statements made is not proposed for this landfill, will ultimately fail to prevent leachate from migrating through the

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 235

The sentence in question from the Draft EIS/EIR was misunderstood to mean that all recyclable and hazardous materials would have been removed. The sentence has been changed in this Final EIS/EIR to read as follows: "The municipal solid waste (MSW) that has been sorted to remove recyclable and hazardous materials (MSW residue), according to the requirements established by the CIWMB that recognize small quantities of hazardous materials will remain in MSW residue, would be transported to the proposed landfill from various Southern California Communities via the existing SP Main Line track and the proposed rail spur."

Response to Comment No. 236

The sentence in question from the Draft EIS/EIR was misunderstood to mean that all recyclable and hazardous materials would have been removed. The sentence has been changed in this Final EIS/EIR to read as follows: "... where it would be sorted and processed to remove recyclable, hazardous materials, and other unacceptable wastes, according to the requirements established by the CIWMB that recognize small quantities of hazardous materials will remain in MSW residue."

Response to Comment No. 237

Comment noted.

Response to Comment No. 238

Please see response to Comment No. 110.

liner system to the underlying groundwater. Further, in this discussion it states that the
239 proposed design will exceed RCRA Subtitle D requirements. It is well-known, including by the US EPA, that RCRA Subtitle D requirements will not protect groundwater systems. Further, as implemented, the groundwater monitoring system required under Chapter 15 Article 5 will
240 not be able to detect groundwater pollution before widespread pollution occurs.

This EIS/EIR is fundamentally flawed and should be rejected as inappropriately
241 describing the situation that will occur with respect to the proposed mitigation measures of constructing a liner system of the type proposed in attempt to try to protect groundwater resources. Such a system will only delay when groundwater pollution occurs.

Introduction, page 1-1, column 2 states,

> *"Title 23 4006 § 25223 of the California Code of Regulations (CCR) defines MSW as garbage, trash, refuse, paper, rubbish, industrial waste, ashes, appliances, food waste, and other materials provided that they do not contain wastes which must be managed as hazardous waste or wastes with soluble pollutants in concentrations which exceed state water quality objectives."*

242 That statement is not a correct statement of the characteristics of the wastes. The wastes that will be placed in this proposed landfill will contain soluble pollutants in concentrations in excess of the state water quality objectives.

Page 1-3, column 1, second full paragraph states,

> *"The Applicant plans to develop the proposed Mesquite Regional Landfill to provide cities and counties throughout Southern California with the ability to plan for long-term environmentally safe landfill capacity as they develop the local waste management programs."*

243 While that may be the superficial plan, in fact, the proposed plan as presented will not achieve those objectives. The proposed design of this landfill will only delay when the wastes developed by these cities pollute groundwater. This means that ultimately, as discussed in the enclosed paper on long-term liabilities of landfills, the cities that deposit waste in the landfill will be responsible for Superfund-like clean-up at this landfill.

On page 1-6 the draft EIS/EIR presents quotes from the CEQA regarding exploring reasonable alternatives. The authors did not discuss the requirements of CEQA with respect to developing an EIR. According to the State's Guidelines for EIR's (Section 15151) for CEQA,

> *"An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of proposed projects need not be exhaustive, but the sufficiency of an EIR is to be reviewed*

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 239

Please see response to Comment No. 110.

Response to Comment No. 240

Please see response to Comment No. 110.

Response to Comment No. 241

Please see response to Comment No. 110.

Response to Comment No. 242

MSW residue received at the proposed Mesquite Regional Landfill would meet the requirements for disposal at a Class III landfill.

Response to Comment No. 243

Please see response to Comment No. 110.

in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

244 It is obvious from these discussions, based on a review of the draft EIS/EIR that the authors have failed to provide this type of review for this landfill. The decision makers and the public have been provided with highly unreliable information on the long-term impacts of the landfill waste components on the groundwater resources of the region. They have also grossly overstated the ability of the various mitigation measures incorporated into the design of the landfill to prevent groundwater pollution by landfill leachate and gas for as long as the wastes in the landfill will be a threat to public health and the environment.

245 Page 2-19, Figure 2-11 presents a an example of the segment cross section for the proposed Mesquite Region Landfill. While this figure labels the liner systems as a *"triple composite base liner and leachate system,"* in fact, this landfill will be constructed with a single composite liner underlain by a 30 mil FML. The liner system is <u>not</u> a triple composite based liner. Those knowledgeable in the topic area would know that a triple composite based liner would be three composite liners, each one consisting of a flexible membrane liner underlain by two feet of compacted soil or clay with a permeability of no greater than 10^{-7} cm/sec. The authors of the EIS/EIR do not understand common terminology used to describe landfill liner systems. If they do not understand the terminology used in the field, how can they be expected to provide an EIS/EIR that properly describes the long-term behavior of these liners relative to the length of time in which the wastes in the landfill will be a threat to groundwater quality. Fundamentally this EIS/EIR is flawed and should be rejected.

Page 2-37, second column repeats another misleading statement where in section 2.1.5 under "Liner and Leachate Management System" it is said that,

"The Applicant proposes to install a base liner and leachate management system that exceeds existing and proposed state and federal (Resources Conservation and Recovery Act (RCRA), Subtitle D) regulatory standards for Class III landfill liners."

246 The authors of the EIS/EIR evidently are not aware of the June 17, 1993 state of California Water Resources Control Board requirements for Class III landfills. The state of California Landfilling Policy requires that there be no impaired use of groundwater by the landfill for as long as the wastes represent a threat. Any liner system that is proposed for a landfill must achieve that performance standard. The proposed liner for the Mesquite Regional Landfill will obviously not achieve that standard, and therefore cannot be permitted and be in accord with the state Landfilling Policy.

247 This same paragraph incorrectly describes the proposed liner system as a triple composite liner. As shown on page 2-38 in Figure 2-17 this is not a triple composite liner; it is a single composite liner with an underlying FML below a one-foot thick clay layer. First it is well-

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

<u>Response to Comment No. 244</u>

See response to Comment No. 110 for discussion of why ground water pollution from landfill leachate and LFG is not expected. This discussion includes descriptions of landfill environmental control systems, including the base liner, LCRS and LFG collection systems, as well as a discussion of the philosophy and rationale supporting them.

The Mesquite Regional Landfill DEIS/EIR was developed based on a series of technical analyses that are included as appendices. These technical analyses evaluated various aspects of the site including ground water, and ground water protection. The references to these appendices include a list of all of the relevant data that was considered for discussion. Where points of disagreement among experts existed, they were either discussed in the text (see, for example, discussion in Faulting and Seismicity, Appendix C of the DEIS/EIR concerning existence of the Sand Hills Fault), or addressed by providing a clear statement of the basis for the technical analysis chosen to support the conclusions (see, for example, the analysis in support of the liner system in Appendix H to Appendix B of the DEIS/EIR).

<u>Response to Comment No. 245</u>

Please see response to Comment No. 105.

<u>Response to Comment No. 246</u>

Please see response to Comment No. 110.

<u>Response to Comment No. 247</u>

Please see response to Comment No. 105.

248 known in the field that one-foot thick clay layers cannot be reliably constructed. Typically, at least two feet of clay are needed to achieve appropriate performance. Second, it is very important to understand that all of the comparison with Subtitle D landfills presented on page
249 2-39 is superfluous to the state of California requirements.

It is not clear that the one-foot thick clay layer with maximum permeability of 1 x 10^{-6}
250 cm/sec is permittable under current regulations, since the regulations specify a maximum permeability of 1 x 10^{-7} cm/sec.

The statement is made in the last paragraph, column 2 of page 2-39 that,

"Any leachate generated within a landfill segment would be collected and piped to a holding tank."

That statement is not correct and cannot be accomplished. Part of the leachate that is generated
251 within the landfill will leak through the liner system at the time of construction when the landfill is put into operation. The landfill liner system will deteriorate over time and eventually fail to be an effective barrier to leachate transport out of the landfill to the groundwaters of the region. The US EPA in its August 30, 1988 proposed Solid Waste Disposal Criteria stated,

"First, even the best liner and leachate collection system will ultimately fail due to natural deterioration, and recent improvements in MSWLF (municipal solid waste landfill) containment technologies suggest that releases may be delayed by many decades at some landfills."

The US EPA in its July 1988 Criteria for Municipal Solid Waste Landfills also stated,

"Once the unit is closed, the bottom layer of the landfill will deteriorate over time and, consequently, will not prevent leachate transport out of the unit."

The references cited herein are provided in the materials previously submitted to you.

Page 2-40, first column, last paragraph discusses the flaring of landfill gas. No mention
252 is made that landfill gas flares of the type typically used produce dioxins which are now recognized to be highly hazardous to public health. They are also hazardous to terrestrial and aquatic life. This issue is not addressed in the EIS/EIR and represents another significant deficiency in it.

On page 2-54, first column, a discussion is presented of the proposed vadose zone monitoring in which vertical vadose zone monitoring wells will be used. It is stated,

"Perimeter gas wells would be installed to detect LFG or leachate escape from the triple-composite liner system."

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 248

Please see response to Comment No. 110.

Response to Comment No. 249

California adopted Subtitle D liner requirements, therefore the comparison is appropriate.

Response to Comment No. 250

Please see response to Comment No. 110.

Response to Comment No. 251

Please see response to Comment No. 110.

Response to Comment No. 252

Although dioxin generation and emissions have been a concern with incineration of total refuse mass and hazardous waste, a process that typically occurs at temperatures of 1,800° to 2,200° F, dioxin generation is not a concern for the flaring of LFG at the lower temperature range of 1,400° to 1,500° F. The South Coast Air Quality Management District (SCAQMD) rules and guidelines were used in preparing much of the air quality analysis for the Proposed Action because of SCAQMD's acknowledged experience. SCAQMD Rule 1150.1 (Control of Gaseous Emissions from Active Landfills) requires that the flare temperature be at least 1,400° F and does not mention, nor require, source testing for dioxins.

253 The vertical monitoring wells will not function to detect leachate moving through the unsaturated zone. It appears that the authors of this section do not understand the elements of vadose zone transport of contaminants.

Page 2-57, second column in the section "Hazardous Materials Management" states,

"Removal of hazardous materials from the Mesquite Regional landfill waste stream would occur in two ways:

- *Public education and collection programs*
- *Waste screening"*

As discussed above, those familiar with this topic area and who will reliably report on it know that it is impossible to keep hazardous materials (chemicals) out of municipal solid waste landfills. For example, vacuum cleaner dust for many households contains sufficient concentrations of lead to be a hazardous waste if it were analyzed for the purpose of classifying hazardous waste. Similarly, most urban soils contain lead in such concentrations as to make them potentially hazardous to children who come into contact with them. Street sweepings and other materials that are routinely put in landfills contain large amounts of hazardous chemicals. To try to portray that the Mesquite Regional Landfill will not have hazardous materials in it is
254 totally inappropriate.

Pages 2-73 and 2-74 discuss landfill closure where it states on page 2-74,

"The proposed landfill would be closed with a cover system designed to prevent precipitation infiltration and avoid excessive soil erosion."

255 This is another of the highly inappropriate statements contained within this EIS/EIR that are self-serving on the part of the applicant and those who prepared the draft EIS/EIR.

Page 2-75 and 2-76. It is stated in the last paragraph, column two of page 2-75 that, *"other landfills will be developed in the region."* On page 2-76 it says *"several proposed*
256 *projects may in fact operate in concert, rather than alternately."* Such a statement does not reflect an understanding of the high degree of competition that exists between landfill companies. There is a limited waste supply compared to landfill capacity available. A properly prepared, non-biased Environmental Impact Statement/Environmental Impact Report on this situation would have discussed the potential for the various landfills all being approved and there being severe competition among the landfills for the wastestream. Because of the high investment in establishing a landfill, the landfill operators would have to cut corners, compromising on environmental protection, in order to keep their prices competitive, and therefore stay in business. This will be the likely scenario that will play out because of the multiple landfills being approved in the region, rather than the landfills all working together "in concert." While it may be argued, on behalf of the landfill applicant, that the regulatory agencies would prevent the landfill from operating out of compliance, those familiar with the ability of regional boards to properly enforce regulations governing landfills know that the regional boards and other

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 253

Please see response to Comment No. 110.

Response to Comment No. 254

It was never intended that the Draft EIS/EIR portray the proposed landfill project as not containing hazardous materials. A new sentence has been added to this Final EIS/EIR immediately following the quoted sentence from page 2-57 of the Draft EIS/EIR. The new sentence is as follows: "It is not expected that all of the hazardous materials that occur in the waste stream could be removed prior to landfilling."

Response to Comment No. 255

Comment noted. Please see response to Comment No. 110 for discussion of infiltration analyses performed for the proposed landfill. Please see response to Comment No. 192 for a discussion of soil erosion analyses for the proposed landfill.

Response to Comment No. 256

If the project is approved, the Applicant will be required to provide financial assurances for corrective action, closure, and post closure care. These financial assurances would allow for the mitigation of any environmental impairment associated with the proposed landfill regardless of the operation of other landfills in Southern California.

regulatory agencies are not adequately staffed and/or otherwise have the necessary resources to properly inspect the landfill to ensure regulatory compliance.

257 The section in the draft EIS/EIR concerned with alternatives has the same deficiencies as the primary section with respect to long-term public health and environmental impacts.

258 Page 3-26, second column, last paragraph does not properly describe how Subtitle D requirements are incorporated with Chapter 15 in the new Water Resources Control Board Landfilling Policy that was adopted on June 17, 1993.

259 Pages 3-26 to 3-45 discuss the water resources at the site of the landfill. A review of this discussion shows that there is water that is of sufficient quality to be readily used with minor treatment for domestic water supply purposes that would be hydraulically connected to the proposed landfill. Therefore, because of the inevitable failure of the liner, it is only a matter of time until the proposed landfill impairs the use of this water because of leachate pollution. The draft EIS/EIR attempts to portray this water as not usable for domestic purposes. Minor treatments, such as an under-the-sink RO unit, could convert it to a form that is readily usable at a cost of a few cents/person/day.

260 Page 3-131 discusses environmental health and public safety issues, but fails to mention the groundwater pollution by landfill leachate that is a significant potential problem for public health for those future generations that would want to use this water for domestic water supply purposes. This issue should have been discussed in the draft EIS/EIR.

Beginning on page 4-5 there is a discussion of the impact of the proposed landfill on water resources. This section states as the first sentence, *"This section assesses impacts to water resources that could potentially result from the Proposed Action."* It also claims to identify mitigation measures which are incorporated into the design *"... which would reduce potential impacts to below a level of significance."*

261 Page 4-9 under "Groundwater Contamination," again misrepresents the characteristics of the liner system. This is not a "triple composite protective liner." In the second full paragraph, first column on page 4-9, it is stated that,

> *"Site conditions at the proposed landfill site would naturally mitigate against potential ground water contamination because of the small amount of rainfall and the naturally low soil moisture conditions in the vadose zone. These conditions indicate that the downward migration of rainfall infiltration toward the ground water, which is a possible mechanism for contaminant transport, is not currently occurring in this desert area."*

262 This statement is highly misleading. From the information provided there is no question about the fact that leachate will be produced within the proposed Mesquite Landfill should it be permitted and that as the liner system deteriorates, it will pollute the groundwaters of the region.

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 257

Please see response to Comment No. 110

Response to Comment No. 258

Comment noted. Section 3.1.2 (and, as appropriate, other such references) of this Final EIS/EIR have been modified to reflect the newly adopted regulations.

Response to Comment No. 259

Please see response to Comment No. 136 for a discussion of groundwater quality and the insignificant risk of a failure of the proposed liner system..

Response to Comment No. 260

This issue is addressed in Section 4.1.2 of this EIS/EIR. Section 4.1.2 found that ground water would not be contaminated by the Proposed Action with implementation of the mitigation measures described in Section 4.1.2.3 of this EIS/EIR. Therefore, there would be no impacts to public health and human safety because groundwater would not be contaminated.

Response to Comment No. 261

Please see response to Comment No. 105.

Response to Comment No. 262

Please see response to Comment No. 110.

In the next paragraph under Leachate it is stated that,

> *"....it is not anticipated that leachate would be generated for the majority of the operating life or after closure of any disposal segment."*

263 The inappropriateness of that statement is demonstrated by the Water Resources Control Board SWAT test results on desert landfills. They show that desert landfills generate leachate and pollute groundwater. It is also common sense that, while desert landfills produce less leachate because of lower precipitation, they do not produce no leachate.

On the top of the second column of page 4-9, the statement is made that the leachate collection and removal system would remove any leachate generated. While that may be true
264 at the time that the system is installed provided that installation is done correctly and the filling of waste does not disrupt the liner system, over time the flexible membrane liner which is the key component of the leachate collection and removal system will deteriorate and fail to function as an effective component of the leachate collection and removal system.

Table 4-2 on page 4-10 is presented as a discussion of why the proposed landfill will not pollute groundwaters. It is stated under the potential for defects in the FML that a rigorous QA/QC process would be followed in liner construction. Bonaparte and Gross (1990) have reported after review of the actual performance of various liner systems,

> *"Liquid flows have been observed from the leakage detection layers of many double-lined landfills and surface impoundment facilities."*
>
> *"Based on the data in this study, an action leakage rate of 50 lphd* [liters per hectare per day] *is too restrictive and presents a performance standard that, if promulgated by USEPA, frequently will not be met by facilities that were constructed to present standards with rigorous third-party CQA programs. An action leakage rate of 200 lphd* [~7,800 gal/acre/yr] *appears to be reasonable for landfills that have been constructed using rigorous third-party CQA programs."*

The references listed in this quote are cited in the materials previously submitted to you (Tom Zale of the Bureau of Reclamation) for incorporation into the administrative record for the
265 Mesquite Landfill EIS/EIR. It appears that the authors of this section were not aware of the literature on this topic. In any event, their presentation of this information is highly unreliable and is sufficient grounds to cause the rejection of this EIS/EIR as conforming to the minimum requirements for reliably reporting on the impacts of the proposed landfill.

In the last paragraph of column 2 on page 4-9, a discussion is presented on the seepage times from the landfill to groundwaters and then in the groundwater to the Amos/Ogilby alluvial basin. Even if the calculations were done correctly, which is doubtful, the presentation clearly demonstrates a hydraulic connection between the landfill and groundwaters of the region that are

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 263

Please see response to Comment No. 110 for a discussion of the potential for the proposed Mesquite Regional Landfill to generate leachate and a description of the proposed liner, LCRS, and monitoring system. Therefore, impacts would not be significant.

Response to Comment No. 264

Please see response to Comment No. 110.

Response to Comment No. 265

Please see response to Comment No. 110.

266 of importance, where leachate pollution would render them unusable for domestic water supply purposes.

The statement in the last sentence of this section, *"During such a long period, contaminant constituents in the seepage water would be naturally degraded and attenuated"* reflects a lack of understanding of the characteristics of municipal landfill leachate and the aqueous environmental chemistry of leachate components in groundwater systems. Contrary to the statement made, significant components of MSW leachate from the Mesquite Landfill will
267 not degrade or be attenuated. There is no question about the fact that it is only a matter of time until leachate from this landfill, should it be permitted, will pollute groundwaters, rendering them unusable for domestic water supply purposes. The state of California's current Landfilling Policy which incorporated the requirements of Chapter 15 prohibits the construction of a landfill which can impair the uses of the waters of the state. This prohibition is explicitly stated to be in effect for as long as the wastes in the landfill are a threat. The waste in the Mesquite Landfill will be a threat to groundwater resources in the vicinity of the landfill forever. Therefore, it is only time until this landfill will be in violation of the current landfilling policy. These are the issues that should have been addressed in the EIS/EIR where a discussion of the consequences of such pollution and how they would be mitigated is reliably presented.

Page 4-11, first column, first paragraph, the authors of this section have again significantly mis-stated the ability of the liner system to collect all leachate. All leachate
268 generated in this landfill will not be collected by the liner system for as long as the wastes represent a threat.

The statement in the following paragraph,

> *"Based on the combination of site climate, subsurface conditions, proposed leachate control system, and proposed monitoring procedures, ground water quality impacts as a result of liquids derived from within the landfill (i.e., leachate) would not be significant."*

misrepresents the actual situation that will occur at the Mesquite Landfill. The authors of the EIS/EIR have presented an inadequate discussion of these issues in an effort to promote the interests of the landfill applicant, ignoring the interests of the public, future generations, and property owners and users who will occupy property adjacent to the landfill in the future.

In the next paragraph in this column the authors of this section admit that there is a potential for landfill gas migration to groundwater. As discussed in the enclosed report on the impacts of landfills and in the previously submitted reports to you, Tom Zale, it is well known
269 that landfill gas contains a wide variety of hazardous or otherwise deleterious chemicals that represent a significant threat to public health and the environment. While the authors of the EIS/EIR assert that the landfill gas collection system would prevent any landfill gas migration problems from occurring, they have grossly overstated the ability of the proposed landfill containment system, including gas collection system to achieve this level of mitigation.

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 266

Please see response to Comment No. 110.

Response to Comment No. 267

Please see response to Comment No. 136.

Response to Comment No. 268

Please see response to Comment No. 110.

Response to Comment No. 269

Please see response to Comment No. 110.

Overall

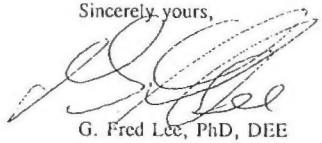
270 According to the California Environmental Quality Act (CEQA), an Environmental Impact Report (EIR) on a proposed project is to provide decision-makers and the public with a disinterested, in-depth discussion of the potential impacts of a proposed project on public health and the environment. We have found that the draft EIS/EIR for the Mesquite Regional Landfill does not fulfill the requirement of CEQA to adequately and reliably inform decision-makers and the public about the potential public health and environmental quality hazards associated with this project.

I request that if the landfill applicant, EIS/EIR authors or others attempt to discredit any of the technical issues discussed herein that they be required to document in writing their position on issues with any technical support they feel is appropriate. This material then can be examined under proper peer review to determine the appropriateness of the statements made in support of the landfill applicant. I am confident that proper peer review of these issues will show that our assessment of the situation is correct and that it is only a matter of time until groundwater pollution by this proposed landfill will occur, should it be permitted. Since pollution of this type is a violation of the state's Landfilling Policy, this landfill cannot be permitted as proposed and conform to this Policy.

The highly significant deficiencies in the draft EIS/EIR are such that the draft must be returned to the applicant with instructions to start over with the development of a credible EIS/EIR for this proposed project.

If there are questions about any aspects of these comments, please contact me.

Sincerely yours,



G. Fred Lee, PhD, DEE

Copy to: Jurg Heuberger
J. Caffrey, Chairman, Water Resources Control Board

GFL:oh
Enclosure

RESPONSE TO COMMENT LETTER RECEIVED FROM G. FRED LEE & ASSOCIATES (CONTINUED)

Response to Comment No. 270

This EIS/EIR is in full compliance with NEPA, CEQA, and the attendant regulations governing the implementation of NEPA and CEQA; therefore, a supplemental EIS/EIR is not required. NEPA and CEQA both recognize that there may be disagreement between experts but disagreement does not make an EIS/EIR inadequate.

This EIS/EIR was prepared by an independent third party, The Butler Roach Group, and was independently reviewed by BLM and County of Imperial staff, including representatives of the County of Imperial Department of Health Services. In addition, Woodward Clyde Consultants and Brian Mooney and Associates also independently reviewed this EIS/EIR. Finally, the EIS/EIR comments provided by the US EPA (Comment Nos. 124 to 151), CIWMB (Comment Nos. 1 to 17), RWQCB (Comment Nos. 104 to 117), and LEA (Comment Nos. 62 to 64) do not raise the technical issues raised by this commentor.

EAGLE MOUNTAIN

LANDFILL and RECYCLING CENTER

RECEIVED
EL CENTRO RESOURCE AREA
EL CENTRO, CA.

July 6, 1994

Bureau of Land Management
El Centro Resource Area
1661 South 4th Street
El Centro, CA 92243
Attn: Thomas Zale

Imperial County Planning and Building Department
939 Main Street
El Centro, CA 92243
Attn: Jurg Heuberger

Subject: Draft Environmental Impact Statement/Environmental Impact Statement (EIR/EIS)
Proposed Mesquite Regional Landfill
State Clearinghouse No. 92051024
BLM No. CA-060-5440-10-B026

Dear Mr. Zale and Mr. Heuberger:

The purpose of this letter is to provide your respective agencies with comments on the draft EIR/EIS which has been circulated for public comment. MRC received local approval and certification for the Eagle Mountain Landfill and Recycling Center EIR from Riverside County Board of Supervisors on November 3, 1992. The Bureau of Land Management approved the necessary land exchange and grants of right-of-way on October 20, 1993. The comments within this letter are presented not as opposition to the Mesquite Landfill Project, but in hopes that both Projects are being developed on a "level playing field" for the benefit of the citizens of Southern California.

271 1. The Draft EIS/EIR fails to evaluate the Eagle Mountain Landfill and Recycling Center as an available alternative to the proposed project. The conclusion in Table S-1 (page S-37) of the Draft EIS/EIR that the impacts of other No Action Alternative landfills, of which Eagle Mountain Project is one, "cannot be reasonably predicted at this time" is not correct. The Final EIS/EIR for the Eagle Mountain Project has been certified by the Bureau of Land Management and Riverside County, and contains sufficient detail regarding environmental impacts so as to allow a full and complete comparison with the proposed Mesquite project.

MINE RECLAMATION CORPORATION

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE MINE RECLAMATION CORPORATION, SIGNED BY GARY W. JOHNSON, VICE PRESIDENT, LANDFILL DEVELOPMENT, DATED JULY 6, 1994.

Response to Comment No. 271

Please see response to Comment No. 164. The impacts of the proposed Eagle Mountain Regional Landfill are described in Section 4.7 of this EIS/EIR.

The BLM and County eliminated the Eagle Mountain Landfill from detailed consideration as an alternative. As explained in the Draft EIS/EIR, the BLM and County took this approach because the Eagle Mountain Landfill failed to meet one of the County's basic objectives for the project: building Imperial County's economy by approving an environmentally and economically sound project that provides long-term employment opportunities within the County. (Draft EIS/EIR, p. 2-86.) As proposed, the Eagle Mountain Landfill would be located in Riverside County, not in Imperial County.

In addition, in determining the feasibility of alternative sites, the lead agency may consider whether the required property is owned or can reasonably be acquired by the project proponent. (Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 574 [276 Cal.Rptr. 410].) See also 15126 (d). In this case, the Eagle Mountain Landfill site is owned by private entities that are entirely separate from, and are indeed direct competitors with, the proponents of the Mesquite Regional Landfill. Under such circumstances, a detailed analysis of the Eagle Mountain Landfill as a distinct alternative is not necessary.

272 2. The 24-hour average state standard for sulfur dioxide shown in Table 3-13 (page 3-88) is not correct; the correct standard is 40 ppbv, and not the 50 ppbv value contained in the table.

273 3. Table 3-14 (page 3-90), which shows the attainment status for areas that would be affected by the Proposed Mesquite Regional Landfill, contains numerous errors:

- Imperial County is designated nonattainment/transitional for the federal ozone standard.
- The entire South Coast Air Basin is designated nonattainment for the federal NO_2 standard, and not just downtown Los Angeles.
- The entire South Coast Air Basin is designated nonattainment for the federal CO Standard, and not just downtown Los Angeles.

Furthermore, the table should be modified to reflect the attainment status of the Coachella Valley, which is different than the attainment status for the South Coast Air Basin.

274 4. The Draft EIR/EIS estimates ambient air quality impacts associated with the project by using the EPA model ISCST2. However, this model is only suitable for use in simple terrain. The Draft EIR/EIS should address potential project impacts in complex terrain using an EPA-approved model given the terrain features in the area surrounding the project site.

275 5. The analysis shown in Table 4-15 (page 4-89) regarding a "box model" analysis of potential ozone impacts in the Coachella Valley due to rail traffic associated with the proposed project is scientifically flawed, and should be deleted. It is inappropriate to model project-specific ozone impacts in this manner, and is not consistent with modeling guidance established by the California Air Resources Board. Furthermore, a box model is inappropriate for use in estimating potential impacts of rail traffic through the Coachella Valley for inert pollutants. A line source model should be used for this purpose.

276 6. The reference to an odor threshold of 700 ppbv for hydrogen sulfide at page 4-106 is incorrect. The detection threshold is 0.5 ppbv, and the recognition threshold is 4.7 ppbv. (Air Pollution Engineering Manual, Air & Waste Management Association, 1992, p. 148). The state ambient air quality standard for hydrogen sulfide is 30 ppbv, which is well above the odor threshold.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE MINE RECLAMATION CORPORATION (CONTINUED)

Response to Comment No. 272

Table 3-13 has been revised in this Final EIS/EIR.

Response to Comment No. 273

Table 3-14 has been revised in this Final EIS/EIR.

Response to Comment No. 274

The EPA model ISCST2 is well suited to the Proposed Action, and its use at this site is consistent with the guidance of both the ICAPCD and the SCAQMD. The site is located on quite flat terrain that has only a gentle slope towards the southwest of approximately 1 percent. The foothills of the Chocolate Mountains are approximately four miles north of the site and do not require modeling.

Response to Comment No. 275

CARB has approved only one model to evaluate O_3 formation, called the Urban Airshed Model (UAM), for use within five metropolitan areas in California including Los Angeles within SOCAB. Approved models for predicting O_3 in Coachella Valley, other parts of SEDAB, and other nonurban areas of the state do not exist. Although line models can simulate the dispersion of pollutants from highways and rail lines, a box model is better for estimating the worst-case O_3 generation because the precursors, NO_x and ROG, from the train and existing background concentrations react over a period of hours, not instantly. The required mixing time and mixing volume are better simulated with a box model because most of the ROG that might react with the train-emitted NO_x would need to be provided by the background atmosphere. As can be seen in Table 4-15 in the Draft EIS/EIR, the train could provide a concentration of ROG only one-sixteenth of the concentration of NO_x. Finally, the box model simulation included the conservative assumption that the train-induced NO_x would be completely converted to O_3, no matter how inadequate the concentration of ROG needed for such reactions. A box model is quite adequate for conservatively predicting the concentration of inert pollutants because the model includes no interactive chemical reactions.

Response to Comment No. 276

The comment is incorrect, not the reference. Montgomery (1985) presents 700 ppbv as the detectable concentration of H_2S, while the commentor's reference (Buonicore and Davis, 1992) presents a range of detectable concentrations that includes the 0.5 parts per billion by volume (ppbv) stated in the comment. This letter reference also includes a graph of intensity versus concentration that shows 700 ppbv of H_2S causes a Katz-Talbert category of faint intensity. Approximately 60 ppbv was the lowest concentration that could even be categorized in this study (Dravnieks, 1972). This information is academic, because the H_2S concentration calculated at the edge of the railroad right-of-way is 0.8 parts per trillion by volume (pptv), which is almost three orders of magnitude less than the lowest concentration stated to be detectable by any reference. The Draft EIS/EIR contains a typographical error on page 4-106, column 2, second paragraph, where the concentration was given as 8 pptv but should have been 0.8 pptv. This typographical error has been corrected in this Final EIS/EIR.

277 7. The air toxics risk assessment contained in the Draft EIR/EIS was not prepared in accordance with the guidelines established by the California Air Pollution Control Officers Association. These guidelines require that impacts be evaluated for the maximally exposed individual over a period of 70 years. The remoteness of the site does not provide a basis for ignoring these requirements. The less conservative analyses presented in the Draft EIR/EIS may be helpful in interpreting the required analysis but cannot be used as a substitute for it.

278 8. The discussion of mitigation measured in Section 4.5.8.2 is not adequate in its mere reference to Section 4.1.8. Section 4.1.8 contains a number of project and analytical assumptions, and does not clearly identify those assumptions that would be required as mitigation measures. Section 4.5.8.2. should clearly identify the mitigation measures to be required of the project applicant, and should indicated the agency responsible for ensuring the mitigation measures are carried out. Based on the assumptions contained in Section 4.1.8, these mitigation measures should include at a minimum:

- A limit in maximum MSW disposal rates in accordance with Table 4-6.
- Requirements for the replacement of all on-site construction equipment every few years, so as to ensure the use of the lowest emitting equipment, as discussed at page 4-67.
- Descriptions of which project areas would be paved, which would be treated with dust suppressants, and which would be watered, consistent with assumptions discussed at page 4-69.
- A requirement that all SP Diesel locomotives used to haul waste to the site be modified to achieve at least a 30% reduction in NOx emissions, without increases in emissions of other pollutants, by the eighth year of project operations.
- A requirement that all SP Diesel locomotives used to haul waste to the site use 0.05% sulfur Diesel fuel.
- A requirement that no switch engines be used at either end of the waste haul line, as assumed at page 4-70.
- A schedule requiring the installation of energy recovery facilities, to replace flares, consistent with the assumptions contained in the Draft EIR/EIS.

Further mitigation measures that should be required include the adoption of fugitive dust control measures comparable in effectiveness to those required under South Coast AQMD Rule 403, landfill gas collection efficiencies comparable in effectiveness to those required under South Coast AQMD 1150.1, flare design parameters comparable in efficiency to those required as best available control technology by the South Coast AQMD, and establishing a $1 million mitigation fund for use in offsetting train emissions in the Coachella Valley.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE MINE RECLAMATION CORPORATION (CONTINUED)

Response to Comment No. 277

Please see response to Comment No. 182.

Response to Comment No. 278

A limit on the maximum disposal rate would be a condition of the CUP, therefore it is not a required mitigation measure.

The mitigation measure "New equipment shall have emission characteristics required by U.S. EPA and CARB" has been added to Section 4.1.8.6. Section 4.5.8.2 states "With implementation of the mitigation measures identified in Section 4.1.8.6, and the proposed offsets identified in Section 4.1.8, impacts would not be significant."

Paving would exist on the site access road, and on roads from the intermodal area up onto the landfill to within an appropriate distance from the working face. A portion of the rest of the unpaved road would be treated with surfactant, which would create a hard, pavement-like surface. The semi-permanent segments of road would be maintained with surfactants until road settling conditions stabilize and adequate lengths are available to allow paving. The rest of the road up to the actual working face area would be watered. The cover borrow road (to the ore residue pads and overburden piles) would be treated with surfactant.

It is not in the BLM's or Imperial County's jurisdiction to regulate the operation of a common carrier. Therefore, is not feasible to require the fourth, fifth, and sixth bullets of this comment as mitigation measures. However, based on discussions with Southern Pacific Rail Corporation, these measures would be implemented. Please see response to Comment No. 21.

The Final EIS/EIR was revised to include the mitigation measure "energy recovery facilities or other technologies capable of reducing air emissions from the destruction/use of landfill gas" shall be implemented before air emissions from the flare reach 1,200 pounds per day (88 percent of the 250 tons per year Prevention of Significant Deterioration Threshold). Appropriate environmental review would be required at that time.

Response to Comment No. 278 (Cont'd)

Because the proposed project is not located in the South Coast AQMD, it is not necessary to implement SCAQMD Rules. * This EIS/EIR found that the railhaul-related emissions in the Coachella Valley would not be significant as described in response to Comment No. 21. The mitigation measures identified in this Final EIS/EIR are sufficient to mitigate the significant environmental effects of the proposed project.

279 9. The proposed project would contribute to existing violations of state and federal air quality standards in the Coachella Valley, and thus will result in a significant cumulative air quality impact for ozone and PM_{10} in that area.

280 10. On page 2-39, the base liner is referred to as a "triple composite" liner. This is misleading. A "composite liner", as typically defined by federal and state regulatory agencies and landfill operators, refers to a liner consisting of a flexible geomembrane overlying a compacted, low-permeability soil or manufactured bentonite mat. A "double composite liner", as typically defined by regulatory agencies, refers to two "composite" liners separated by a leachate collection or detection layer. The use of the term "triple composite liner" implies three distinct composite liners, each separated by a collection/detection layer. This should be corrected.

281 11. The proposed liner system consists of a one foot compacted clay layer with a geomembrane liner in direct contact both above and below. Typically, clay liners are compacted to a density and moisture content sufficient to achieve a required permeability. Generally, this will result in an as-compacted saturation of 80 to 95 percent, depending on the type of clay in the soil and the gradation of the soil. During landfilling, as waste is placed above the liner, the clay liner will compress and consolidate, and the saturation value goes up as the air voids are decreased. For a typical composite liner, this will result in construction water from the clay draining from the bottom of this layer as the clay layer nears saturation. With the proposed liner system, the construction water in the clay has no place to drain due to the geomembrane in contact against the bottom as well as the top of the clay. This could cause a build-up of excess pore water pressure in the clay and possibly lead to an instability under certain loading (both static and seismic) conditions. This should be examined during the environmental review process.

We hope the foregoing comments will be considered in your review of the EIS/EIR. Thank you for the opportunity to comment.

Sincerely,

MINE RECLAMATION CORPORATION

Gary W. Johnson
Vice President, Landfill Development

RESPONSE TO COMMENT LETTER RECEIVED FROM THE MINE RECLAMATION CORPORATION (CONTINUED)

Response to Comment No. 279

Ozone impacts to the Coachella Valley would not be cumulatively significant because of the project-related reduction of ozone transport from the South Coast Air Basin to the Coachella Valley.

Please see response to Comment No. 21.

Response to Comment No. 280

Please see Response to Comment No. 105.

Response to Comment No. 281

Please see response to Comment No. 110.

SANTA FE PACIFIC GOLD CORPORATION
4002 EAST HIGHWAY 78 BRAWLEY, CALIFORNIA 92227-9306
TEL 619-352-6541 FAX 619-352-8057
A Santa Fe Pacific Company

June 30, 1994

Mr. G. Ben Koski,
United States Department of the Interior,
Bureau of Land Management,
El Centro Resource Area,
1661 South 4th Street,
El Centro, CA 92243-4561

SUBJECT: DRAFT MESQUITE REGIONAL LANDFILL EIS/EIR - DATED APRIL 8, 1994

Dear Mr. Koski:

Thank you for providing the above referenced document for review and comment. Santa Fe Pacific Gold Corporation - Mesquite Mine (Santa Fe) has the following comments:

1. Current Land Ownership Status

282 The above referenced document does not clearly address Santa Fe's or Hospah's land ownership status. The result is that the casual reader could easily conclude that the Mesquite Mine and the proposed Mesquite Regional Landfill have the same parentage, with the Mesquite Mine still operated by Gold Fields. Santa Fe while not being critical of the Landfill Project does not wish to be perceived as being associated with it, and requests that language and maps clearly show the true relationship between the two entities.

2. Air Quality Issues

283 The document states that offsets will be available to the Landfill from the Mesquite Mine from 1997, when mining rates and equipment usage will decrease. Santa Fe can not guarantee this schedule and the availability of off-sets at that time.

284 The data used to calculate PM_{10} concentrations were for 1991 and 1992, both non-drought years, with 3.66 inches of rainfall in 1991 and 10.58 inches in 1992. The PM_{10} annual arithmetic mean for these years was 27.8 $\mu g/m^3$ and 17.0 $\mu g/m^3$. These values can be significantly higher when one checks the Mesquite Mine's arithmetic mean for previous years. Santa Fe would recommend that a larger, more representative data base be used for determining this number.

RESPONSE TO COMMENT LETTER RECEIVED FROM SANTA FE PACIFIC GOLD CORPORATION, MESQUITE MINE, SIGNED BY ANDREW F. KACZMAREK, GENERAL MANAGER, DATED JUNE 30, 1994.

Response to Comment No. 282

The Applicant from the Mesquite Regional Landfill Project is Arid Operations, and there is no common parentage between Arid Operations and Santa Fe Pacific Gold Corporation.

Response to Comment No. 283

Comment noted, all potential offsets would be considered by the Applicant and the ICAPCD during air quality permitting that will begin if the requested CUP is approved by the County of Imperial. This EIS/EIR also identifies the diversion from burning of agricultural material as a potential source of offsets. Other potential offset sources would include the following:

- Existing stationary sources could be equipped with more effective air pollution controls to create emission reduction credits.
- Conversion of engines of Imperial County public or certain private vehicles so that they would operate using cleaner fuels.

Response to Comment No. 284

PM_{10} concentration was monitored at two sites within the property of the Mesquite Mine between 1985 and 1989, and at four sites from 1990 to the present. The Draft EIS/EIR used data from 1991 and 1992 to calculate the two-year arithmetic and geometric means. These years actually provide the most useful data from the mine because peak tonnages were being produced and four PM_{10} monitors were in use, resulting in better accuracy. Data from these years were used in Draft EIS/EIR Table 4-11 together with model-estimated project impacts to compute maximum off-site ground-level air pollutant concentrations. Statistically, there is not a strong relationship between PM_{10} and rainfall at this low desert site (i.e., evaporation routinely exceeds rainfall by an order of magnitude). In response to the comment, the full nine years of data has been used to create the following arithmetic and geometric means: 28.0 and 21.1 $\mu g/m^3$, respectively. These means have been substituted into Table 4-11 of this Final EIS/EIR.

3. Storm Diversion

285 Figure 2-15 shows run-off from the Chocolate Mountains flowing through the Vista Pit. This is not desired nor planned by Santa Fe. Instead the construction of a diversion channel is planned to intercept the flow at the northern mine boundary, and carry the flows to the west, around the overburden piles west of Brownie Hill, and back to the natural washes as shown in this figure.

This modification will also impact the location of the desilting basin as shown in figure 2-16.

4. Santa Fe Pacific Gold Corporation's Understanding of the Mesquite Mine's Status with respect to Tortoise Mitigation Credits

286 The Mesquite Mine, through a Section 7 Consultation Process under the Endangered Species Act, secured tortoise compensation that allows Santa Fe full mine development through to the end of mine life as covered under approved Plans of Operation as granted by the Bureau of Land Management prior to the Biological Opinion of March 1992. The scope of the mine's activities are shown in the EIR/EIS document in figure 3-19, indicated by mine pits, overburden rock piles, planned leach pads, existing leach ponds and leach pads.

6. Cyanide Contamination

287 In discussing alternatives, the EIR/EIS document gives as an advantage to an alternative site, the avoidance of potential cyanide contamination. This statement is misleading as all leach residues will have been detoxified to California Regional Water Board standards by the mine prior to their release for use as landfill cover. In the event that Landfill permits require additional detoxification beyond standards in place at the cessation of mining activities, then the Landfill will be required to meet those new standards. However, in any event, the prospect of cyanide contamination is non-existent, unless the Landfill were to use residues which were not detoxified, an action unplanned for by Santa Fe.

If any of these comments precipitate the need for additional information please write or call the undersigned at (619) 352-6541, extension 103.

Sincerely,

SANTA FE PACIFIC GOLD CORPORATION
MESQUITE MINE

Andrew F. Kaczmarek
General Manager

RESPONSE TO COMMENT LETTER RECEIVED FROM SANTA FE PACIFIC GOLD CORPORATION, MESQUITE MINE (CONTINUED)

Response to Comment No. 285

Figure 2-15 only shows maximum potential pit boundaries, not the actual pit. Footnote 1 on the figure indicates that the drainage structures for the mine would be modified to accommodate actual mine pit expansion. To the extent that this results in minor modifications to the proposed landfill drainage structures, they would be implemented. At this time, there is no information to indicate that these minor modifications, if they occur, will substantially impact proposed landfill drainage or require any change in the surface water analysis.

Response to Comment No. 286

BLM has initiated a separate Section 7 consultation for the proposed Mesquite Regional Landfill.

Response to Comment No. 287

Comment noted. Cyanide contamination from use of the heap leach material is not expected to occur for the reasons stated in this comment. (Please see response to Comment No. 2.) Nevertheless, not using the heap leach material as cover at the alternative site would completely avoid any potential for project-related cyanide contamination.

SIERRA CLUB

CALIFORNIA/NEVADA BLM LANDS COMMITTEE RECEIVED

6/29/94

Dear Sir:

The following comments are in reference to the Draft Environmental Impact Statement and Environmental Report (DEIS/R) for the Mesquite Regional Landfill Project (SCH. No. 92051024, BLM No. CA-060-02-5440-10-B026).

288 From our point of view, the environmental perspective, the mitigation, monitering, and reporting standards are the heart of any EIR/S. They are an inherent part of the planning, not something that is tacked on afterward. Therefore, we cannot properly evaluate the balance of the plan until this information is available. We request that the comment period on the *entire* document be reopened for an appropriate period of time after the mitigation, monitering, and reporting standards are available for public review, so that we may make comments as required.

Please note that we are expressing no opinions on the necessity or desirability of this project, only its environmental consequences and conformance to CEQA and other environmental laws and regulations.

289 In addition to the missing mitigation/monitering/reporting information noted above, the document is deficient in areas noted below. Therefore we believe that the DEIR/S, as written, is insufficient, as it does not provide the public and decisionmakers with sufficient information to make an informed decision on the project.

290 1. Actual rainfall statistics from the nearest available location should be included in the plan -- ie, the Mesquite Mine. These are necessary to evaluate the adequacy of the surface water runoff facilities, and the leachate collection and treatment facilities.

291 2. Information on water quality, quantity, depth, proximity to springs or seeps, proximity to other groundwater users, and aquifer characteristics and recharge are not included in the DEIR/S. References to the Mesquite Mine are insufficient -- the Mesquite Regional Landfill is a separate project and the information should be in the documentation for this project.

292 3. To blend with the nearby wilderness area, the reclaimed dump should be a darker color than indicated in 4-27. This might be done by rock staining. Special attention must also be paid to color, form, and texture in the final reclaimed project, and a licensed landscape architect should be employed to design and supervise this aspect of the project.

293 4. The final mitigation, monitering, and reporting plan should provide, among other requirements, that:

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, CALIFORNIA/NEVADA BLM LANDS COMMITTEE, SIGNED BY STAN HAYE, CO-CHAIR, DATED JUNE 29, 1994.

Response to Comment No. 288

Please see response to Comment No. 13.

Response to Comment No. 289

Please see response to Comment No. 172.

Response to Comment No. 290

Actual rainfall statistics from the Mesquite Mine are used in the HELP modeling of infiltration and the hydrogeological assessment (see Table 4.1 in Appendix B). Please see response to Comment No 138.

Response to Comment No. 291

Information on water quality, quantity, depth, proximity to other users, and aquifer characteristics and recharge are included in Section 3.1.2 of the Draft EIS/EIR. This analysis is based on extensive information on the site and the region, which was gained from investigations in connection with the Mesquite Mine. These investigations were performed by the Gold Fields Mining Co. (parent company of Arid Operations, Inc., Applicant for the Mesquite Regional Landfill) as owner of the Mesquite Mine until 1993. Additional investigations were also performed for the landfill project by Arid Operations, Inc. Access to the information from the Mesquite Mine investigations, together with information from the investigations performed for the proposed Mesquite Regional Landfill, make this one of the most studied sites in the Southern California desert. This has allowed the Lead Agencies to review large amounts of information in connection with the analysis of the potential environmental impacts.

Response to Comment No. 292

This EIS/EIR found the visual impacts of the proposed landfill to be significant because of the size of the landform that would be created and because the proposed landfill would dominate local views as described in Section 4.1.11. The color of the landfill was only one consideration in the determination that the impact from viewpoints 2 and 3 would be significant. A strong degree of contrast was found for the visual elements of form, line, color, and texture. Attempting to color the proposed landfill would do nothing to mitigate impacts to form, line, and texture. Staining, which is most successful on solid surfaces, would not reduce the overall significance of this impact, and is therefore not required.

Response to Comment No. 293

Please see responses to Comment Nos. 151 and 221.

a. Native plants, with seeds gathered from the local area, be used for revegetation.

294 b. Topsoil and plants from disturbed areas be salvaged to the maximum extent possible, a plant nursery be established for this purpose, that these plant materials be used for revegetation, and that strict survivability standards be established.

295 c. The public be given access to the dump on a regular basis to observe compliance with permit conditions.

296 d. That a bond, adequate to close and reclaim the dump, be required to be posted in the same manner as a mine under the Surface Mining and Reclamation Act, and that before the bond is released a public tour of the facility be offered, and a public hearing held, to ensure that reclamation is satisfactorily completed.

297 e. A trust fund be established, the income from which will be sufficient into perpetuity to pay for the maintenance of the leachate and gas collection and disposal systems, so this will not become a financial burden on taxpayers.

298 f. At least one full time Federal or County employee, fully paid for by the applicant, to be on site at all times to ensure compliance with project terms and conditions.

299 g. At least one full time employee employed by the applicant as Environmental Manager, to be the contact with the public and government agencies, and to have direct responsibility for environmental compliance.

300 Finally, we are completely dumbfounded that use of the existing Mesquite Mine pits for the dump is not even identified as an alternative. Use of these pits would greatly diminish the impact of the project, especially on tortoise habitat and scenic values, even if not all of the pits are available until after mining is complete. This alternative must be given full consideration.

As stated above, we reserve the right to comment on the *complete* DEIR/S when available. Please place us on your mailing list for this project, and keep us informed as the project proceeds.

Sincerely,

Stan Haye

Stan Haye, Co-CHAIR
P. O. Drawer W
Independence, CA 93526

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, CALIFORNIA/NEVADA BLM LANDS COMMITTEE (CONTINUED)

Response to Comment No. 294

Please see responses to Comment Nos. 151 and 221.

Response to Comment No. 295

Public agencies would be given access to the proposed landfill on a regular basis to observe compliance with permit conditions. The public would be allowed to visit the Mesquite Mine Overlook Trail, but for reasons of public safety, generally would not be allowed at the landfill, intermodal, or other working areas.

Response to Comment No. 296

As described in Section 2.1.18 of this EIS/EIR financial assurances would be provided for closure, post closure care, and corrective action according to one of the mechanisms allowed by 40 CFR Subpart G or as required in the future.

Response to Comment No. 297

Please see response to Comment No. 296.

Response to Comment No. 298

Monitoring and compliance would involve many activities as described in the Mitigation Monitoring and Reporting Plan. The Applicant would be responsible for the costs of monitoring and reporting as determined by the CUP. This EIS/EIR has not identified the need for continuous project monitoring by governmental agency personnel.

Response to Comment No. 299

Arid Operations would have at least one full time employee that would be directly responsible for environmental compliance as well as contacts with the public and permitting agencies.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, CALIFORNIA/NEVADA BLM LANDS COMMITTEE, SIGNED BY STAN HAYE, CO-CHAIR, DATED JUNE 29, 1994.

Response to Comment No. 300

The use of the Mesquite Mine Pits is addressed as an alternative in this EIS/EIR. This alternative would not fully mitigate visual impacts because an above-ground landfill would still be needed to provide the same capacity. On-site impacts to Category III (lowest quality) habitat would be reduced, but BLM would not receive nearly as much Critical habitat as compensation under a filling the mine pits alternative. Please see Section 2.4.2. of this EIS/EIR for a more detailed discussion of the reason the Filling the Mine Pits Alternative was dropped from further consideration.

SIERRA CLUB, SAN DIEGO CHAPTER
San Diego and Imperial Counties
3820 Ray Street
San Diego, CA 92104

July 5, 1994

Bureau of Land Management
El Centro Resource Area
1661 South 4th Street
El Centro, CA 92243

Re: Comments on 4/94 Draft EIS/EIR for Proposed Mesquite Regional Landfill in Imperial County, California

Gentlemen:

We appreciate the opportunity to comment on the Draft EIS/EIR and its technical appendices for the proposed Mesquite Regional Landfill.

301 We found the Draft EIS/EIR to be woefully inadequate for a project of this magnitude and duration. Some of the problems which made evaluation of the potential environmental impacts of the proposed project difficult include:

(a) incomplete project description;
(b) failure to disclose locations of transfer stations/MRFs; truck haul routes from MRFs to intermodal;
(c) monitoring data missing from both Appendices and DEIS/EIR;
(d) data inconsistent within an Appendix and sub-appendices;
(e) inconsistent presentation of data in volumes of appendices;
(f) inconsistencies between DIES/EIR and technical appendices;
(g) inadequate and/or inaccurate DEIS/EIR presentation of information in technical appendices;
(h) missing mitigation monitoring plans;
(i) inconsistencies within DEIS/EIR;
(j) incomplete and inadequate environmental review of alternative site which includes desert tortoise relocation area;
(k) inadequate cumulative impacts discussion;
(l) piecemealing discussion of LFG enhancement and its associated groundwater impacts;
(m) failure to provide full disclosure of problems and limitations of the lined landfill technologies and monitoring systems over the life of the project;
(n) failure to disclose information about economics of proposed project and financial assurance instruments;
(o) inadequate discussion of project construction, liner sealing and installation, systems components, monitoring and remediation.
(p) failure to disclose controversies related to wildlife impacts and potential success of proposed mitigation efforts;

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER, SIGNED BY JEANNE DAVIES, SOLID WASTE CHAIR AND EDIE HARMON, IMPERIAL COUNTY REPRESENTATIVE, DATED JULY 5, 1994.

Response to Comment No. 301

This comment is a summary of the specific comments contained in the comment letter. Please see the responses to each specific comment that follow. Also, please see response to Comment No. 172.

(q) inadequate discussion of availability of air pollution offsets;
(r) inadequate discussion of Alternatives to project; inadequate discussion of other similar mega-landfill proposals not in Imperial County;
(s) Inadequate discussion of an Alternative related to increased recycling, source reduction, and reuse, take-back, etc. and use of landfill site closer to origins of MSW generation;
(t) insufficient evidence to support conclusions that impacts to desert tortoise can be mitigated so impacts would not be significant and that with mitigation, or that cumulative impacts to desert tortoise would be insignificant. Mitigation measures are not fully disclosed, and appear vague, incomplete and untested. Cumulative impacts discussion for biological impacts is inadequate.
(u) insufficient evidence to support conclusions that project would or could be mitigated so that potential impacts to water resources would not be significant over the 100 year life of the project or at any time after closure;
(v) insufficient evidence to support conclusion that transportation related effects of entire proposed project would have "no direct significant impact on transportation";
(w) insufficient evidence to support conclusion that the effects of the proposed project would be mitigated so that no significant impacts to air quality would occur and that proposed offsets in Imperial County are available or adequate to prevent occurrence of significant adverse air quality impacts in Imperial County;
(x) inadequate discussion of cumulative impacts on air quality related to anticipated growth in Imperial County and NAFTA induced growth in the Calexico/Mexicali area;
(y) inadequate discussion of cumulative impacts to water resources and insufficient evidence to support conclusion that cumulative impacts to groundwater would not be significant;
(z) failure to discuss health impacts of proposed project on employees or to discuss the cumulative effects synergistic effects of exposures at the project site and off-site exposures to agricultural chemicals and PM_{10}s;
(aa) insufficient evidence to suggest that the proposed project would have no adverse impact on the quality of recreational experiences afforded by surrounding public lands and nearby wilderness areas, or that impacts would not be significant and require no mitigation
(bb) inadequate evidence to support determination that Alternatives would lessen the impacts of the proposed project

Therefore, we recommend preparation of a Draft Revised EIS/EIR to correct the above deficiencies, resolve inconsistencies, provide missing information, and answer all questions. At the Planning Commission Workshop 6/8/94 the public was told that all written questions would be answered. Accordingly, we are submitting our

questions and comments on the proposed rail haul regional landfill at this time.

We respectfully request a full 90 day comment period be provided for review and comment on the Revised Draft EIS/EIR. The size and 100 year duration of the proposed action would have far reaching and long term impacts if approved and deserve very careful consideration.

Again we appreciate the opportunity to comment of the Draft EIS/EIR for the proposed Mesquite Regional Landfill in Imperial County.

Sincerely,

Jeanne Davies

Jeanne Davies
Solid Waste Chair

Edie Harmon

Edie Harmon
Imperial County Representative

Enclosures:
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cc: Regional Water Quality Control Board

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P. County of San Diego Policy A-116, "Ownership of solid Waste Management/Disposal Facilities"

Q. Imperial County Census data: Employment status

R. Imperial County Census data: Household family incomes

S. Imperial County Census data: Language spoken at home

T. Imperial County 1989 Poverty status

U. Imperial County population growth 1992-1993, 1993-1994

V. Imperial County 1990 Census, population race, hispanic origin

W. Arkansas Dept. Pollution Control and Ecology denial of Western Waste Industries Phase 4 Construction permit Miller Co, Arkansas and Notice of Violation re Western Waste Industries Permit No. 0147-5 (43 pages)

X Petitioner's Reply Brief Charpied & Charpied v. County of Riverside and Board of Supervisors San Diego Superior Ct. No. 663033 re Eagle Mountain Landfill (20 pgs)

Y "Economics of Trash: Some big waste Firms pay some tiny towns little for dump sites." Bailey J. Wall Street Journal 12/3/91

Z ERF M87 "EPA says all landfills leak, even those using best available liners" RHWM"37

Among other unmitigable consequences of the proposed project on wildlife, any approval of the proposed project as described in the Draft EIS/EIR and its Appendices would result in the de facto decision to potentially condemn groundwater aquifer systems hydraulically connected to substrata beneath lined landfill and acknowledge that the "beneficial use" of those groundwaters may be threatened to allow cheaper disposal of garbage and other wastes for this generation.

These may be the inevitable consequences of mega-landfills because:

> The Subtitle D landfilling approach and requirements adopted by the US EPA are superficial and only serve as a stop-gap measure for managing MSW. They enable today's society to continue to enjoy solid waste "disposal" without the responsibility and expense of preventing them from causing future problems. This is being enjoyed at the expense of future generations' public health, groundwater resources, and welfare. (Lee & Jones-Lee 1994b.)

PUBLIC VS. PRIVATE OWNERSHIP OF LANDFILLS

303 Based on a review of (a) operational problems and violations of regulations at privately owned and operated landfills in various parts of the country, (b) the privatization study prepared for County of San Diego (Deloitte & Touche 1991), and (c) San Diego County Policy A-116 re "Ownership of Solid Waste Management/ Disposal Facility" (Exhibit P). We urge that BLM not approve any land exchanges or land transfers to private ownership by Arid Operations, Inc. (AOI) or to any other private company, corporation or partnership for the purpose of constructing and operating a municipal solid waste landfill at any location in Imperial County. The case studies in the Deloitte & Touche 1991 Appendices for the Final Report reveal important considerations about the importance of public ownership of the landfill site.

The Deloitte & Touche study "concluded that continued public ownership of the solid-waste system would result in reduced costs, minimization of long-term risks and tighter controls over operations." (Pierce 9/16/92, Exhibit N.) According to San Diego County's staff report, the costs for public ownership would be lower "because of the public sector's ability to finance capital construction and lower interest rates in the absence of profit" (Pierce 9/16/92; San Diego County 1992). Thus, after public input and discussion, the Supervisors, by a 4 to 0 vote, approved continued public ownership of County landfills and a "privatization policy which will allow the county to consider proposals for private ownership of other solid waste facilities, such as transfer stations and recycling operations, on a case-by-case basis. ....Under the policy, the county can continue to contract with private companies to operate its landfills." (Pierce 9/16/92.) (San Diego County's Policy A-116 is appended as Exhibit P.)

If, after review of a Draft Revised or Subsequent EIS/EIR with a full comment period of 90 days, and preparation of a Final

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 303

The commentor's desire for publicly-owned rather than privately-owned landfills is noted. The mitigation measures proposed have resulted from consultations within each area of expertise. For example, biological mitigation measures were developed after extensive consultation with the U.S. Fish and Wildlife Service and California Department of Fish and Game, and mitigation measures for water quality (i.e., liner design) were formulated after extensive consultation with the Regional Water Quality Control Board. Please see response to Comment No. 172.

EIS/EIR, the County of Imperial and BLM believe that a regional landfill should be approved, it is urged that the land on which the landfill sits be publicly owned by either the County of Imperial or by the State of California. Either of the public entity owners could then provide for competitive bids to contract with private companies such as AOI to operate that landfill if private operation is desired.With public ownership of landfill site, comments in response to much of the DEIS could change considerably.

DEIS is inadequate because it fails to provide meaningful discussion of project components and impacts or include information and documentation required to consider environmental consequences and potential successes of Applicant's proposed mitigation measures as required by CEQA. The following comments and questions are based on review of the Draft EIS/EIR and its appendices as submitted for public review in April 1994. If these comments appear repetitive, it is because the DEIS and its Appendices are repetitive. Discussion of legal issues related to CEQA follows comments and questions generated by review of the Draft EIS/EIR.

DEIS ABSTRACT:

304 Land Exchanges: The abstract states that 1750 AC of BLM lands would be transferred to Arid Operations, Inc. (AOI) for a landfill "in exchange" for lands owned by Arid. The Abstract also states that the "proposed landfill would strongly contrast with the existing visual setting, and visual impacts would be significant and unmitigatable." Since the visual and wildlife impacts will be in Imperial County why do exchange lands include "high quality scenic resources in the Santa Rosa Mountains National Scenic Area" rather than in Imperial County? The California Desert Protection Act has designated a number of Wilderness Study Areas (WSAs) and Areas of Critical Environmental Concern (ACECs) within Imperial County. Surely it would be more appropriate for any lands to be considered for acquisition and exchange by AOI to be private inholdings within Imperial County (a) proposed Wilderness Areas (WAs) for visual impacts, (b) existing ACECs or (c) optimal or critical habitat for threatened or endangered species for wildlife impacts. Yes, the Chuckwalla Bench lands are within Imperial County, but the Santa Rosa lands are in Riverside County. Why aren't exchange lands all located within Imperial County? Why shouldn't AOI be required to purchase and transfer inholdings in Wilderness Areas in Imperial County if it wishes to develop a landfill which will create "significant and unmitigable" visual impacts in a scenic area of Imperial County?

305 Why has BLM been considering and proposing approval of mega-landfills (including the proposed Mesquite Landfill (LF) to import trash from urban areas to private mega-landfills) in desert areas within the boundaries of the Northern & Eastern Colorado Desert Coordinated Management Plan or Chuckwalla Bench Desert Tortoise Habitat Management Plan (depicted in the Planning Area maps attached to the Federal Register notices of 1994 and 1993)? How is consideration and approval of exchange of lands within Category I, II or III desert tortoise habitat for use as regional rail-haul

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 304

The requirement for the exchange of lands is not related to environmental mitigation. The land exchange is required to compensate the people of the United States of America for the federal lands on-site that would be conveyed to the Applicant. Obtaining federal ownership and protection of lands in the SRMNSA is a high priority of the BLM. The SRMNSA parcels were designated wilderness by the Desert Protection Act of 1994. The lands offered by the Applicant were identified for acquisition by the BLM planning process, and include land designated critical habitat for the desert tortoise near the Chuckwalla Bench ACEC. The proposed exchange would occur under the authority of FLPMA. FLPMA does not limit land exchanges for land within the same county as the BLM lands. It does limit land exchanges for lands within the same state as the BLM land (43 CFR § 2200.1).

Response to Comment No. 305

The regional landfills being proposed for the Colorado desert are not BLM-initiated projects. BLM is considering these privately-initiated landfill proposals as it does any privately-initiated proposal. Each of the EISs prepared for these projects address the cumulative impacts to desert tortoise habitat. By acquiring privately-owned land in and near the Chuckwalla Bench ACEC, which is designated Critical Habitat for the desert tortoise, in exchange for Class III habitat at the proposed site and as compensation for the loss of environmental values provided by the on-site BLM lands, BLM is implementing the 1994 Desert Tortoise Recovery Plan.

landfill sites consistent with the desert tortoise Draft Recovery Plan statement that "BLM's goal is to maintain viable desert tortoise populations in category 1 and 2 habitats and to limit population declines to the extent possible in category 3 habitats" (USFWS 1993:17)?

306 Economic feasibility of LFG - Energy Conversion: "Once economically feasible, LFG [landfill gas] would be converted to energy...or...or hauled off-site in rail cars as liquified methane gas." How will LFG be handled before it becomes economically feasible to deal with it in one of the three listed ways? What happens if it does not become economically feasible to pursue treatment as proposed? How would that affect economic viability of the proposed project?

Economic benefits to SCAB - Increased SCAB development - increased demand for water for urban uses

307 Why wouldn't "providing for the landfilling of solid waste outside the South Coast Air Basin" (SCAB) ultimately result in increased growth in the SCAB (in part because the solid waste issue would become an Imperial County problem rather than a SCAB problem)? Wouldn't this result in increased urban demands for Colorado River water for increased urbanization in the SCAB? Wouldn't increased water demands of SCAB development over the next 100 years result in increased demands that water currently used for agriculture be made available for urban needs, perhaps via Metropolitan Water District (MWD) through an agreement with Imperial Irrigation District? Why wouldn't increased urbanization in the SCAB ultimately result in ever increasing amounts of poorer quality air being transported to Imperial County?

MSW Residue shipment

308 Abstract text states that for the proposed 100 year trash by rail project: "Most of this total [20,000 tons/day (tpd)] would be shipped in enclosed containers by rail along the Southern Pacific main line." 100 years is a long time, a very long time. What is meant by the term "most"? Is it 50.1%? How would the rest be shipped? From where would the rest be shipped? The Executive Summary (ES) appears to provide troubling uncertainties not definitively answered elsewhere in DEIS.

309 **What are the ultimate plans for rates of MSW deposition at landfill site?** Is it 20,000 tpd or 30,000 tpd? The ES calls the 20,000 tpd figure merely "the proposed maximum daily volume of MSW residue" averaged over a two week period (S-5.). The ES further notes that: "The actual rate of growth and operational life of the landfill would depend on market conditions for MSW disposal in Southern California." (S-5.) There are only two possible conclusions. Either MSW could be less than 20,000 tpd and landfill life longer than 100 years; or MSW could arrive at a rate greater than 20,000 tpd by importing more trash by either rail or roadway (Alternative IV - 30,000 tpd) and LF life considerably shorter than 100 years. This latter scenario has been played out a number of times with private landfills in Ohio and elsewhere. It is noted that 20,000 tpd represents: "The current total permitted capacity

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 306

As stated in the first paragraph of Section 2.1.6.2, LFG would initially be flared. Energy recovery would only be implemented if it becomes feasible in the future. If energy recovery does not become economically feasible, the flaring of LFG would continue through the post-closure maintenance period. The method of destroying/beneficially reusing the LFG is not expected to substantially affect long-term economic viability of the project.

Response to Comment No. 307

Please see response to Comment No. 35. (It is not possible to determine what source future development in the Los Angeles Basin will use for water. Implementation of the Air Quality Management Plan for the South Coast Air Basin is expected to ultimately reduce the transport of air pollutants from SOCAB to the Imperial County Air Basin, despite future population growth in SOCAB.)

Response to Comment No. 308

Almost all of the MSW residue would be shipped by train. Only MSW residue from Imperial County would be accepted by truck, except in the event of a major interruption of rail traffic on the SP Main Line. If Imperial County chooses to ship their MSW to the proposed landfill, approximately 1.6 percent of the total volume of landfilled material would come from Imperial County, based on the volume of MSW landfilled in Imperial County in 1992. Section 2.1.4.7 describes the highway traffic that could be generated by the proposed project.

In order to clarify this issue in the Executive Summary of this Final EIS/EIR the following sentence has been added as the last sentence to the last paragraph of the first column on page S-5 of the Draft EIS/EIR: "All MSW residue delivery to the proposed landfill would be by train with the following two exceptions: 1) in the event Imperial County chooses to dispose of its MSW at the proposed landfill, in which case only Imperial County MSW could be delivered by truck, and 2) in the event of a major interruption of rail service on the SP Main Line, in which case the MSW-residue that would have been loaded onto trains would instead be loaded onto trucks and hauled to the proposed landfill by truck.."

Response to Comment No. 309

The proposed project is the delivery of 20,000 tons per day of MSW residue for a period of 100 years. The two week averaging period provides for daily fluctuations in the collection and processing of MSW as described in the note to the table on page 2-1 of this EIS/EIR. The maximum average and peak permitted volumes of MSW residue that can be delivered to the site in any given day would be established by the Solid Waste Facility Permit and County Conditional Use Permit. In addition, BLM would control MSW residue deliveries on the rail spur through the rail spur right-of-way. Section 4.6 of this EIS/EIR presents an analysis of the environmental impacts of a regional landfill operating at 30,000 tons per day. This is not proposed by the Applicant.

of transfer stations operating in Los Angeles"(DEIS 1-3). We note further that there are several other rail-haul proposals for southern California desert areas, most purportedly looking toward Los Angeles trash.

310 The Fig 2-38 and accompanying text DEIS 2-85 is noted. Does Alternative IV represent the true intentions of the project applicant? If violations related to rate of filling were to occur, what enforcement actions could be successfully implemented? To what sites would refused MSW residue be sent for landfilling?

We compared the depiction of LF footprint in DEIS Fig. 2-2 and 3-38. The figures and DEIS text (2-85) indicate a LF footprint which is 810 acres larger. The larger project intends not only a larger footprint but also a daily disposal rate of 30,000 tpd rather than the 20,000 tpd of the proposed project (DEIS 2-85).

311 Referencing the above figures depicting the proposed project and Alternative IV a larger project, is it true that the reason that Section 20, portions of Sec. 19 and 21 are included within the project boundary of Fig. 2-2 is that the project proponents fully intend to expand the landfill footprint and increase the acreage of the landfill to fill out the footprint boundaries depicted in DEIS Fig. 2-38? If not, would all partners sign an agreement, binding on all successors in interest, to state that under no circumstances and at no time in the future would any of the partners or their successors in interest make any application to expand the proposed project? Would all partners similarly sign a binding agreement not to increase the TPD to 30,000 tpd at any time in the future if any other alternative is approved? We note that 30,000 tpd is the "maximum anticipated waste stream available for deposit in regional landfills from coastal communities over the next 20 years" (DEIS 4-195).

DEIS EXECUTIVE SUMMARY (ES)

PROPOSED ACTION: Out-of-state importation of MSW Residue?

312 Why doesn't the EIS/EIR include in its analyses the mentioned the possibility that : "In the future, some volumes of MSW residue could come from communities outside Southern California"(S-1)? Since the Commerce Clause of the Constitution and recent court decisions bar the interference with interstate commerce in the transport of waste if the landfill owner is a private rather than public entity, the interstate transport of waste must be considered at this time unless the proposed project partners/owners/operators have signed legal documents binding not only on the present companies, but also on their subsidiaries and/or successors in interest, which prohibit the interstate/international transport and landfilling of interstate/international transported waste. Have the project proponents and their partners, subsidiaries, including but not limited to Gold Fields Mining Corporation, Arid Operations, Inc., Western Waste Industries, and SP Environmental Systems, signed such documents? Are such already signed documents available for public review? If not will such documents soon be signed? we consider these questions related to the ultimate plans for MSW deposition at the proposed landfill site to be of extraordinary

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 310

Please see response to Comment No. 309. Volume is primarily regulated by the CIWMB through the LEA. Volume would also be regulated by the CUP and rail spur right-of-way. Enforcement actions could include fines and ultimately revocation of the permits required to operate the proposed landfill. It would be speculative to predict what sites MSW residue would be sent to if MSW were refused at the proposed landfill. In the event the landfill is closed before its planned completion date, the financial assurances described in EIS/EIR Section 2.1.18 could be used by the County to take corrective actions, close the landfill, and maintain the landfill during the post-closure maintenance period.

Response to Comment No. 311

The proposed site includes lands between the proposed landfill and SR 78. The purpose of including these lands in the Proposed Action is not to allow for the development of Alternative IV. The purpose of the exchange is to avoid leaving an isolated parcel of public land north of SR 78. If the Proposed Action is approved by BLM and the proposed 20,000-ton per day landfill is approved by the County and other regulatory agencies, Alternative IV could only be implemented by modifying the CUP and all other permits that may be issued for that project. The issuance of any modified permits would be a public process that would include public notification, CEQA compliance, and the opportunity for public participation. Modified permits, public participation, and CEQA compliance would be required for any development of on-site lands that is not fully addressed in the EIS/EIR. Because the CUP runs with the land, any future owner of the proposed site would be subject to the CUP conditions as well as the mitigation measures identified in this EIS/EIR.

Response to Comment No. 312

Please see response to Comment No. 200, last paragraph.

importance and, as such, the answers provided will be subjected to intense scrutiny.

ALTERNATIVES:

Other rail haul landfill proposals for Southern California

313 The list of alternatives to the proposed project is both inadequate, self-serving and misleading. Both the project proponents and preparers of the EIS are surely aware that there have been a number of other trash by rail proposals for various locations (whatever their merit or lack of merit) within the Southern California deserts. These include a trash by rail proposed landfill approved by the Secretary of Interior for the Campo indian Reservation in San Diego County. The Eagle Mountain trash by rail proposal has also completed the EIR process, its approval, and is the subject of litigation. The 21,000 tpd Amboy proposal is well along in the environmental review process. Unless there are proposals to import trash by rail from other parts of California, the southwest and other regions of the USA, it appears that there is more proposed mega-landfill capacity in Southern California than needed, especially in light of the mandatory reduction of waste destined for California landfills.

Why doesn't the Alternatives examination include discussion of each of the other proposed MSW trash by rail landfills in other counties in Southern California since each of those other proposed MSW trash by rail sites proposes to import trash from urban centers in Southern California?

314 Discussion in Sec. 2.4 of the other "nine potential rail-haul sites" is inadequate. Table 2.6 (2-95) is out-dated and relies on 6 year old 1988 SCAG data. Table 2-6 fails to include the already approved rail-haul landfill on the Campo Indian Reservation in San Diego County.

Reliance on 1988 data in a EIS/EIR released for public review in April 1994 is unacceptable. What is the most recent CIWMB data? Why wasn't the 7/18/92 CIWMB "Information Sheet on Rail Haul" cited? Information on the other rail-haul LF sites must use 1994 information readily available from CIWMB and other already released EIS/EIRs and should include the current decisions of appropriate decision-making bodies.

Since the proposed project is to import trash from urban areas at distant locations in California (including outside Imperial County), the proposed project appears to serve the same purpose as other proposed projects. Those other trash by rail mega-landfill projects must be considered as being within "a reasonable range of feasible alternatives" and must be both adequately and accurately (up-to-date) presented as alternatives to the proposed project. Failure to do so renders the DEIS and its Executive Summary both inadequate and misleading.

315 Expansion of El Sobrante landfill operated by Western Waste in Riverside County and status of other Western Waste landfills in Southern California: Why doesn't the DEIS include discussion of

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 313

The alternatives analysis in this EIS/EIR is adequate. Please see response to Comment No. 164. The purpose and need for the proposed project is adequately described in Section 1.1.4 of this EIS/EIR. The Campo Landfill would not be a reasonable alternative to the proposed project for the following reasons:

- There is currently no operational rail connection to the Campo Landfill, and it is uncertain when and if a rail connection will be provided; so MSW residue would have to be hauled by truck;
- It would not provide similar landfill capacity. The Campo Landfill has a permitted capacity of 28 million tons of MSW and is expected to remain open for 30 years compared to the 600 million ton capacity and 100-year life of the proposed Mesquite Regional Landfill. The Campo Landfill would accept 3,000 tons per day of MSW compared to 20,000 tons per day for the proposed Mesquite Regional Landfill.
- It would not meet any of the County's or Applicant's objectives. It would not meet BLM's objective of identifying and preserving, through the exchange process, lands in the Santa Rosa Mountains containing important resource values and lands in the Chuckwalla Bench that are capable of providing high quality habitat for sensitive species.

The Campo landfill was not addressed under cumulative impacts because the two landfills are far enough away from each other and they would not share common rail lines for rail haul, and because the projects are in different geologic settings, ground water basins, vegetative communities, counties, air basins, and viewsheds. There would be no significant cumulative impacts.

Please see response to Comment No. 271 for a discussion of Eagle Mountain as an alternative to the Proposed Action.

Response to Comment No. 314

The information in Section 2.4 of the Draft EIS/EIR has been updated in this Final EIS/EIR to reflect the May 31, 1994 CIWMB Status Report on Railhaul. This revised discussion is adequate. Please see response to Comment No. 164. The other proposed regional rail haul projects may meet the state and other regional objectives described in Section 1.1.4.3 of this EIS/EIR; however, they would not meet Imperial County's objectives (Section 1.1.4.2), BLM's second objective (Section 1.1.4.4), or the Applicant's objectives (Section 1.1.4.1).

Response to Comment No. 315

The discussion in Section 1.1.3.2 provides an overview of future MSW sources including projected disposal capacities in Southern California. This information was obtained from each agency and includes consideration of all permitted facilities and planned facilities to the extent such information was provided by the solid waste agency. Use of the referenced facilities would not meet the County of Imperial's objectives, the Applicant's objectives, or BLM's second objective (Section 1.1.4).

The El Sobrante Landfill Expansion would provide between 6,000 and 10,000 tons per day of disposal capacity to Western Waste Industries for a period of approximately 30 years, depending on the amount of MSW that would be delivered to the site by Riverside County. The El Sobrante Landfill is not located along a railroad line and there are no plans to build a railroad spur to the El Sobrante Landfill. Therefore, any MSW deliveries to El Sobrante would have to be by truck (El Sobrante Landfill Expansion Draft EIR/EIS, 1994).

The Final EIR/EIS for the El Sobrante Landfill Expansion project has not yet been completed.

other landfill(s) owned/operated by Western Waste in Southern California? In August 1992 Western Waste proposed to expand the size of that landfill and to import waste from other Southern California counties. (Bloom 8/28/92.) What is the current status of the El Sobrante landfill in Riverside County?

316 Source reduction, recycling, reuse, product take-back are important components of the NO ACTION ALTERNATIVE: ES discussion of Alternative IV, a larger project, states that Alternative IV "could be implemented to avoid or reduce the cumulative environmental impacts associated with multiple future regional landfills or future local landfills." In fact, wouldn't the "No Project Alternative" be the one which would best achieve the goal of avoiding and reducing cumulative impacts at this site?

DEIS provides inadequate discussion of the role of (a) source reduction, (b) recycling, (c) reuse, and (d) product take-back for recycling and refurbishing, (collectively RRRT8) all of which are major components of the "No Action" "No Landfill Project" Alternative. Germany, Japan, Sweden, Austria, Switzerland, The Netherlands, and some US congressional members are considering product take-back requirements. (Allenby 1994:25.) Why doesn't the DEIS provide more discussion of the No Action Alternative and its potential for lessening the impacts of the proposed project?

317 Alternative of landfilling near source of MSW generation: Why is there no serious discussion of the alternative to the proposed project of landfilling MSW residue or other more serious RRRTB near the source of generation in the Southern California counties of generation?

In addition to the significant visual impacts, cumulatively significant air quality and traffic impacts which cannot be mitigated (S-17), we believe that the proposed project adjacent to
318 the existing Gold Fields Mesquite Mine and nearby motorized recreational vehicle activities would result in cumulatively significant impacts to biological resources which cannot be fully mitigated and which are inadequately discussed in DEIS.

ES TABLE S-1

319 ES: WATER RESOURCES/HAZARDOUS WASTE: DEIS is inadequate, in part, because text fails to provide explanation of quantities and nature of hazardous waste from Southern California Small Quantity Generators (SQGs) that could illegally go into Municipal Solid Waste Landfills (MSWLFs).

Table S-1 asserts that: "The landfill shall only accept nonhazardous solid waste, as defined in CCR Article 23, Chapter 15." (S-20.) Why does Table S-1 state that only "nonhazardous solid waste" will be accepted when later DEIS text states that "California law, while classifying these materials as hazardous, recognizes that after proper screening, household hazardous waste (HHW) may be present in MSW residue" (DEIS 4-141)? Why does Table S-1 say that only nonhazardous waste will be accepted when DIES 2-59 cites a 1986 study which "concluded that HHW comprises between

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 316

The No Action Alternative avoids all direct, indirect, and cumulative project-related effects. The discussion of alternatives, including the No Action Alternative is adequate. Germany, Japan, Sweden, Austria, Switzerland, and the Netherlands all rely on landfilling or transformation for part of their waste stream. Please see response to Comment No. 181.

Response to Comment No. 317

Please see responses to Comment No. 181. Regardless of the site of RRRTB, landfilling or waste transformation (e.g., incineration) would still be required according to the CIWMB.

Response to Comment No. 318

Comment noted. Cumulative impacts are adequately analyzed in this EIS/EIR. Cumulative biological impacts are analyzed and found to not be significant in Section 4.7.3.2 and Appendix B of this EIS/EIR.

Response to Comment No. 319

Table S-1 does not say that only nonhazardous waste would be accepted. It says that nonhazardous solid waste as defined by CCR Part 23, Chapter 15 would be accepted. This EIS/EIR then goes on to inform the public that MSW containing small quantities of household hazardous waste meets the CCR Part 23 Title 15 definition of nonhazardous solid waste.

0.31 and 0.52 percent of the MSW stream in California"? Why does Table S-1 state that the proposed landfill would accept only nonhazardous solid waste when DEIS 2-59 states a need for "control of hazardous materials that may occasionally be present in the MSW stream from businesses (e.g. small quantity generator hazardous wastes)"?

320 Even the Introduction states that: "Very small quantities of household hazardous materials occasionally can be mixed in with the MSW residue even after sorting and processing." (DEIS 1-1.) Indeed, 0.31 to 0.52 percent of the waste stream looks at first glance to be "a very small quantity". However, when one considers that 20,000 tons of MSW residue would be received per day after year, this "very small percentage" translated into 62 to 104 tons/day of hazardous waste imported to the site. With a proposed landfill capacity of 600 million tons, the total potential tonnage of hazardous wastes at the proposed landfill site could be 1,860,000 to 3,120,000 tons. Consequently the 3.12 million tons of hazardous wastes at the proposed landfill site is small compared to the total tonnage, but doesn't this represent a very large hazardous waste dump site? What percentage of this HHW is likely to be successfully removed from MSW residue prior to landfilling? What studies document such successful HHW removal?

The EPA characterization of residential waste is described in the November 1992 Final EIS for the Campo Solid Waste Management Project, Campo Indian Reservation, San Diego County, California (Campo FEIS) prepared for the USDOI Bureau of Indian Affairs. Campo FEIS states that: "The EPA further estimates that 0.1 percent to 0.5 percent of the residential waste is classified as hazardous (US EPA 1986 and Environmental Monitoring Systems Lab 1987." (Campo FEIS 1992:3-120.) Apparently California MSW contained a higher
321 percentage of hazardous waste than other regions of the country. As AB 939 implementation proceeds, the percentage of HHW in MSW residue may actually increase as more recyclables are removed.

322 **Transfer stations/MRFs:** What are the impacts of MRFs in urban areas and truck haul of MSW residue from Materials Recovery Facilities (MRFs) to rail load centers in urban areas? DEIS is inadequate because it fails to precisely explain how hazardous
323 waste would be detected and removed from MSW at transfer stations/MRFs. Since one of the partners operates transfer stations in Los Angeles County, why is this information missing? Does it really happen, if so, how?

The Mesquite DEIS asserts that there would be hazardous waste screening at transfer stations/MRFs and at the project site. But what are the procedures for identifying and removing hazardous wastes disposed of in household trash compactors? How would small items such as (a) batteries, and (b) leaking or leaked liquid or powdered hazardous wastes, including that disposed of in trash compactors, be identifies and removed at transfer stations/ MRFs or at the landfill site? What third party inspections will occur and with what frequency?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 320

As described in Section 4.1.12.2 of the Draft EIS/EIR, federal law does not classify household hazardous waste as hazardous. California law, while classifying these materials as hazardous, recognizes that after proper screening, household hazardous waste may be present in MSW residue. Please note that most household hazardous wastes exist as residue inside empty or partially empty containers. The weight of the container, however, is considered in the determination of the percentage of household hazardous wastes. Therefore, the estimates, provided in this comment, of the quantity of hazardous waste that would be landfilled are overstated. Prediction of the amount of HHW that would be removed at the landfill face would be speculative at best. The strict regulations concerning landfill environmental controls, including base liner and LCRS requirements, are designed with the anticipation that household hazardous wastes would be deposited in Class III landfills. As described in Section 4.1.2 of this EIS/EIR, the potential for ground water contamination from the proposed Mesquite Regional Landfill is not found to be significant, despite the potential for household hazardous waste in the MSW residue. Therefore, the presence of household hazardous wastes, together with other disposed MSW residue materials, would not pose any substantial risk to public health or safety.

Response to Comment No. 321

Comment noted; processing MSW through transfer stations/MRFs, as proposed by the Applicant, would be expected to reduce HHW quantities in MSW residue landfilled at the proposed Landfill. See also response to Comment No. 320.

Response to Comment No. 322

Please see response to Comment No. 15.

Response to Comment No. 323

The sorting procedures that are implemented at transfer stations/MRFs are independent of the Proposed Action. Implementation of the Proposed Action would not change the way these facilities operate. MSW that is delivered to transfer stations/MRFs that has been compacted either by packer trucks, household compactors, or other means is broken apart so

Response to Comment No. 323 (Cont'd)

that unacceptable materials can be removed. Various facilities use different methods to detect and remove unacceptable wastes. The methods of inspection for unacceptable wastes and the method of removal is the subject of the transfer stations/MRFs solid waste facility permit. The LEA and CIWMB are responsible for enforcing these permits through reporting procedures and periodic inspections.

324 Will Western Waste Industries (WWI) allow the intentional addition of industrial/commercial hazardous waste to MSW residue at its transfer stations as it has in the past when it pleaded no contest to charges of illegal mixing of hazardous waste with MSW? (See Los Angeles Times articles, Exhibits A, B.)

US EPA says hazardous waste goes into MSWLFs

325 In EPA's Final Rule 40 CFR Parts 257 and 258 for Solid Waste Disposal Facility Criteria (Federal Register V. 56, No. 196, 10/9/91, EPA noted that:

> municipal solid waste landfills may receive hazardous waste from small quantity generators (SQG) and household hazardous waste (HHW). Multiple SQGs and multiple sources of HHW may collectively result in substantial quantities of hazardous wastes at MSWLFs. (US EPA 1991:51080.)

EPA's Proposed Rule for Solid Waste Disposal Facility Criteria, Federal Register V. 53, No. 168 8/30/88 noted that: EPA's 1985 "National Small Quantity Generator Survey" defined SQGs as "operators yielding less than 1,000 kilograms of hazardous waste/ month" and that "SQGs annually produce 940,000 metric tons of hazardous waste/month, consisting largely of lead-acid batteries, solvents, and strongly acid or alkaline wastes." "[t]he survey found that solid waste disposal facilities including MSWLFs are the second most frequent destination for SQG hazardous waste shipped off-site." "EPA estimates that MSWLFs may receive from 5% to 16 % of the SQG hazardous waste produced." (US EPA 1988 p. 33318.)

How much hazardous waste is produced by SQGs in Southern California? Martin (1994) of the Los Angeles District Attorney's Environmental Crimes Division, estimated that there are 25,000 generators of hazardous waste presently in Los Angeles County. (Yes, twenty five thousand!) She was uncertain of how many were classified as SQGs. How many SQGs are located in each Southern California County, and how much hazardous waste do they produce? If 5 to 16% of SQG hazardous waste ends up in MSWLFs, what is the anticipated tonnage of hazardous waste from those sources in the proposed LF?

Based on EPA information available, one must conclude that any proposed regional LF accepting 20,000 tpd, with a life capacity of 600 million tons of municipal solid waste (MSW) will contain a substantial tonnage of hazardous wastes. Depending on the sources of waste and the percentage of hazardous waste landfilled at the site, the amount of hazardous waste (using EPA estimates) could be 20 to 100 tons/day or 600,000 tons to 3 million tons over the life of the landfill. Using California estimates, it would be 62 to 104 tons/day or 1.86 to 3.12 million tons of household hazardous waste over the life of the landfill without even considering possible SQG hazardous waste.

EPA's Proposed Rule for Solid Waste Disposal Facility Criteria, Federal Register V. 53, No. 168 8/30/88 noted that:

> EPA's current data on MSWLF leachate are limited but indicate the tremendous range of constituents and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 324

WWI has indicated that it is WWI's policy to comply with all applicable laws in conducting its business and that the individuals responsible for the actions described by the L.A. Times article were dismissed from WWI.

As stated in Section 2.1.9 of this EIS/EIR transfer stations/MRFs must operate according to permit conditions and copies of the permit would have to be provided to the Applicant, where they would be kept on file for County review, before MSW residue could be shipped to the proposed landfill. Also, the CUP would require that only MSW residue from certified transfer stations/MRFs could be delivered to and landfilled at the proposed Mesquite Regional Landfill. Random load checks would occur both at the landfill and the transfer stations/MRFs and, as described in Section 2.1.4.9, the Applicant and the County would be able to track each load to its originating transfer station/MRF. This would allow the Applicant and/or the County to refuse MSW residue from permitted transfer stations/MRFs that do not adequately screen MSW for HHWs.

Response to Comment No. 325

Currently, Assembly Bill (AB) 939 requires a 25 percent reduction in the volume of MSW. This would expand to 50 percent by the year 2000. It is anticipated that most of these reductions would occur through sorting to remove recyclables at transfer stations/MRFs. The proposed Mesquite Regional Landfill would not accept MSW residue that has not first been sorted at a transfer station or MRF to remove recyclables and hazardous materials prior to disposal. These sorting procedures are expected to remove most hazardous wastes, especially the larger materials that can come from SQGs, that are present in MSW residue. Therefore, the number of SQGs and the amount of hazardous waste they produce is beyond the scope of this analysis. MSW from SQGs would be sorted at transfer stations/MRFs before being shipped to the proposed landfill. As a result, it is likely that between 0.1 and 0.5 percent of MSW residue arriving at the proposed Mesquite Regional Landfill would consist of household hazardous waste. The actual volume of household hazardous waste would likely be even smaller. Most household hazardous wastes exist as residue inside empty or partially empty containers. The weight of the container, however, is considered in the determination of the percentage of

concentrations that may be found in MSWLF leachate. Altogether, data were received for 59 landfills, with 37 landfills providing both organic and inorganic leachate analyses, 7 landfills providing only organic analyses, and 15 landfills providing only inorganic analysis. Sixty-four [64] hazardous organic constituents were identified as well as 49 hazardous inorganic constituents and other parameters. In most cases, the list of constituents analyzed for was unknown, so these data may not indicate the full range of constituents that may be found in the leachate even from these MSWLFs. (US EPA 1988: 33374)

Experience has shown that leachate generation in landfills continues long after closure. Therefore, to avoid leachate collecting on top of the liner and causing the "bathtub effect," the owner or operator must continue to remove leachate from the collection system during the post-closure care period until leachate no longer is collected in the system. (US EPA 1988 p. 33344.)

Long-term monitoring is essential to detect releases [of leachate] due to design or operating errors (e.g., tearing of liners or disposing of wastes that are incompatible with the liner and routine deterioration of the liner. Particularly for landfills designed with advanced containment systems (e.g., liners, leachate collection systems, or synthetic final caps), groundwater contamination may be delayed for many years, thus increasing the need for long-term monitoring. Because ground-water monitoring wells are subject to routine deterioration, post-closure activities also should include periodic replacement of these wells as needed. (US EPA 1988 p. 33344.)

"Following the completion of the first phase of post-closure care [30 years] at each landfill unit," the proposed rule "would require the owner or operator to conduct a second, less-intensive phase of care." (US EPA 1988 p. 33345.)

The Agency is proposing this second phase of post-closure care for a number of reasons. **First, even the best liner and leachate collection systems will ultimately fail due to natural deterioration, and recent improvements in MSWLF containment technologies suggest that releases may be delayed by many decades at some landfills.** For this reason, the Agency is concerned that while corrective action may have already been triggered at many facilities, 30 years may be insufficient to detect releases at other landfills. .... Finally, in the absence of sufficient data to follow [sic] the Agency to predict with certainty when containment systems are likely to fail, a second phase of reduced post-closure care ensures that releases will be detected while minimizing costs to the regulated community. (US EPA

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 325 (Cont'd)

household hazardous wastes. See also responses to Comment Nos. 110 and 320. As identified by RWQCB staff, a post-closure monitoring period of 100 years will be required for the Proposed Action (Comment No. 113). The final determination of the post-closure monitoring period for the proposed landfill will be made by the RWQCB.

1988 p. 33345, emphasis added.)

326 Consequently, such a proposed mega landfill would produce leachate which has a high possibility of containing significant amounts of hazardous substances which may pose a threat to the underlying groundwater at some uncertain time, even when placed in a lined landfill because liner materials will not likely retain their integrity forever.

327 **Hazardous materials in MSWLFs & Leachate interactions with liners:** DEIS is inadequate because it fails to provide adequate and realistic discussion of MSW leachate interaction with liners and collection systems.

Based on information to date, the landfilling of such large quantities of hazardous waste using relatively new and long-term unproven technologies of HDPE liners which are likely to respond to unknown interactions of chemical constituents in the LF leachate during the 100 active life and eternal post-closure life of the LF are likely to pose serious problems of liner breaches and potential groundwater contamination at some uncertain time in the future.

Although compacting the MSW residue may "reduce water infiltration during a rain event" (DEIS 2-20), it poses the more serious problem of rupturing any unruptured containers with liquid residues, including such seemingly innocuous materials as cooking oil, vinegar, and other household materials which may later interact with each other and/or other materials in MSW residue to form a variety of other chemicals which have the potential to interact with the materials of the liner and leachate collection systems adding a new source of breach or leak in the system. How
328 does compaction of MSW residue affect leachate and landfill gas (LFG) generation?

The Geraghty & Miller study of landfill contamination of groundwater for US EPA included both lined and unlined landfills where groundwater contamination was previously unknown. Their study showed that 86% "had contaminated underground water supplies beyond the boundaries of the landfill." (Environmental Research Foundation's (ERF) Rachel's Hazardous Waste News (RHWN) #71). The Geraghty study pointed out that: "The intermixing of inorganic and organic wastes of high and low pH, and wastes having different physical properties in a common disposal area, may lead to influences on the environment not anticipated from any single waste material." (quoted in ERF #71, Exhibit C.) In simple terms:

> the mixing of wastes in a landfill will produce unanticipated chemical combinations with unpredictable results. .... The more chemicals involved, the greater the number of possible combinations, the more complex the interactions will be, and the less predictable the results become. (ERF #71.)

Furthermore, the "wastes that are deposited continue to weather and leach for years" (Geraghty in ERF #71) and:

> The chemical interactions within a landfill do not cease

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 326

This EIS/EIR provides an adequate discussion of the proposed liner system's contribution to the overall protection of ground water provided by the Proposed Action. Please see response to Comment No. 110.

Response to Comment No. 327

Please see response to Comment No. 110.

Response to Comment No. 328

Compaction of waste is not expected to create liquids by crushing existing containers because only MSW residue processed through transfer stations/MRFs would be accepted for disposal. Larger containers that might contain significant volumes of liquids would be removed prior to loading of the material into railcars for transport to the landfill. Also, as discussed in Section 2.1.4 of this EIS/EIR, there would be a spotter on the MSW residue container tipper at the landfill disposal face to inspect each load as it is dumped. In the unlikely event that large containers with liquids are deposited at the working face, they would be removed for appropriate off-site disposal. Compaction would decrease the field capacity of MSW residue slightly, though not enough to have a significant impact on leachate generation.

In general, compaction of the MSW residue would tend to reduce the permeability of the landfilled material, therefore, reducing the potential for leachate migration. Compaction would densify the MSW residue, potentially increasing the amount of LFG that could be created per unit volume. The expected compacted density used for estimating the LFG generation rates is discussed in Section 4.1.8 of this EIS/EIR.

Please see response to Comment No. 110 for a discussion of the interaction of leachate with environmental control materials.

This EIS/EIR finds that impacts to ground water would not be significant; therefore, the Proposed Action would not pose a serious burden on future generations.

when the dumping stops. In the case of inorganic materials (arsenic, lead, chromium and so forth) the duration of the hazard is essentially infinite -- toxic metals will never change into anything besides toxic metals. (The Geraghty & Miller study found toxic metals at 49 of the 50 sites...) (ERF #71.)

Researchers at Texas A&M University compared leachate from municipal solid waste landfills with leachate produced by hazardous waste landfills. This study found that "even though the municipal landfills may not legally receive 'hazardous' wastes, the leachate they produce is as dangerous as the leachate from hazardous waste landfills." (ERF #90.) The Texas study found "113 different toxic chemicals in leachate from municipal landfills and 72 toxic chemicals in leachate from hazardous waste landfills." (ERF #90, Exhibit D.) The greater number of toxic chemicals in municipal landfills is probably because municipal landfills contain the entire spectrum of consumer products. Additionally, "small quantity generators" may be dumping hazardous wastes as well as illegal dumping or the dumping of household hazardous wastes. The Texas authors noted that:

> "the final depository of most of the products of our modern industrial society is the municipal waste landfill where paints, plastics, and pharmaceuticals dissolve and degrade in the acidic anaerobic [oxygen-free] environment, thereby, releasing degradation products which may be even more toxic than the products from which they originated."
>
> "The risk calculations based on suspect carcinogens .. indicate that the estimated carcinogenic potency for the leachate from some municipal landfills may be similar to the carcinogenic potency of the leachate from the Love Canal landfill."
>
> In industrial leachate, 32 chemicals cause cancer; 10 cause birth defects, and 21 cause genetic damage; in municipal landfill leachate, 32 chemicals cause cancer, 13 cause birth defects, and 22 cause genetic damage." (ERF #90.)

Detecting the source of leachate contamination from a LF with a 2290 acre foot-print, repairing the LF liner under hundreds feet of overburden, and attempting to clean up and minimize the groundwater contamination for hundreds of years pose serious burdens, both physical and economic, for future generations.

329 How can the preparers of the DEIS possibly predict all the possible combinations of chemicals that will be created in a landfill with MSW residue from so many different sources? How can the preparers of the DEIS predict how these new combinations of chemicals will interact with the liners and leachate collection systems during the 100 year operating life of the landfill and the hundreds of years after the landfill is closed? How can they predict interactions with chemicals and materials to be developed in the future?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 329

The characteristics of MSW residue disposed at the Mesquite Regional Landfill would be similar to that disposed at existing Class III landfills throughout California, except that the potential for hazardous or unusual chemicals would be less because only waste processed at transfer stations/MRFs would be accepted. The potential for hazardous materials within MSW residue is low, and is expected to decrease in the future as increased recycling occurs, and regulatory and educational programs are accepted by industry and the general public. Based on the 1990 average waste stream from the Los Angeles area (Ventura, Los Angeles, and Orange Counties) 0.6 percent of landfilled material was estimated to consist of household hazardous waste and its container (CIWMB, 1995). It is not possible to provide a listing of every possible chemical that could be landfilled, or could occur in landfill leachate. Please see response to Comment No. 110, which discusses why this information is not necessary.

What is the expected duration of the hazardous materials and possibility for chemical interactions inside the landfill vs. the expected duration of the liners that have been selected?

It has been estimated that there are an average of 1000 new chemicals that go into commercial use each year (ERF #71). In the MSW residue stream these are then available to interact with other chemicals already in use. What are the expected numbers of new chemicals and the possible chemical interactions that can be created during the next 100 years, the proposed active life of the landfill?

330 Any conclusion of "not significant with mitigation measures" (S-21) appears unjustified after a review of EPA draft and proposed rules for MSW as published in the Federal Register and after reviewing the numerous editions of Rachel's Hazardous Waste News and other recent publications (Uehling 1993, Lee and Jones-Lee 1991-1994) on landfill issues referencing the flexible membrane liners (FML) and high density polyethylene (HDPE) plastic liners. HDPE has only been in use in this country for landfill liner purposes since the early 1980s (ERF #117, Exhibit E) so how can anyone predict how this material will respond to contact with both presently known chemicals and future unknown chemicals and unknown chemical interactions? What specific long term field studies have been done and with what results? What long-term field studies are in progress? What studies have evaluated the projected long term performance of liners under 475 feet of compacted MSW residue and cover liners exposed to high temperatures over 150 years? What are the results of such studies? What is the downward pressure (pounds/sq. inch) on the liner system from 475 ft. of landfill?

A Phillips Petroleum Company study of chemical properties of HDPE is not convincing with respect to the long-term integrity of HDPE as a landfill liner. According to the Phillips study an incredible number of household chemicals will degrade HDPE, permeating it, causing it to loose strength, softening it, or causing it to become brittle and crack. (ERF #117.) A thick HDPE liner which becomes even stiffer is more likely to crack under the weight of hundreds of feet of compacted MSW residue and soil cover piled on top of it. In addition to the Phillips list of household chemicals, foods and food products, household toiletries and pharmaceuticals, oils and industrial alcohols that are incompatible with HDPE because they "can cause stress cracks", a number of household and industrial chemicals and oils will permeate the HDPE, halogenated hydrocarbons and aromatic hydrocarbons are incompatible with HDPE and will "permeate excessively". (ERF #117.)

Satki's studies of organic permeation through HDPE FMLs noted that M-xylene, toluene, trichlorethylene (TCE) and methylene chloride from dilute aqueous solutions "penetrated through 0.76, 1.52, and 2.54 mm HDPE geomembranes in about one, four and thirteen days respectively." (Satki 1991 cited in Lee & Jones 1992:25.) 2.54 mm thick HDPE is the equivalent of a 100 mil HDPE liner. Organic solvents can be readily purchased and are commonly used in households for cleaning purposes. Satki (1991) concluded that the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 330

The proposed liner is only one part of the system proposed to protect ground water, as described in this EIS/EIR. Impacts would not be significant. The loading would be approximately 140 pounds per square inch. Please see response to Comment No. 110.

HDPE geomembrane would have to be 3 inches thick to retard organic permeation for 25 years, and that after 25 years those organics would permeate even a 3 inch thick membrane. (Lee & Jones 1992:25.)

The 1990 Bonaparte & Gross study of the "best available landfill liners concluded that brand-new state-=of-the-art liners of high density polyethylene (HDPE) can be expected to leak at the rate of about 20 gallons per acre per day (200 liters per hectare per day) even if they are installed with the very best and most expensive quality control procedures." (ERF #316.) In addition to manufacturing pinholes and failed seams, HDPE penetration (even 100 mils thick) "is penetrated by solvents in less than two weeks." (ERF #316.) (A leak of 20 gal/HA/day would yield 18,542.5 gal/day from the 2290 acre LF footprint.)

Long term liner reliability uncertain

331 DEIS is inadequate because it fails to discuss the uncertainties of liner reliability. Lee and Jones (1992) in discussing "Dry Tomb Landfills" state that the:

> long term properties/stability of those materials [including HDPE and FMLs] are poorly understood. The literature clearly does not support the position that flexible membrane liners of the type being used today will prevent leachate from migrating through them for as long as the municipal solid waste represent a threat to groundwater quality.
>
> While the long-term stability of geomembranes (flexible membrane liners) in landfills cannot be defined, there is no doubt that they ultimately fail to function as an impermeable barrier to leachate transport from a landfill to groundwater. Further, and most importantly at this time, there are no test methods, having demonstrated reliability, with which to evaluate long-term performance of flexible membrane liners.
>
> While some landfill applicants have asserted that liners can be constructed so that they will not ever fail, manufacturers of landfill liners provide only 20 year warranties against defects in their liners. Even those warranties are pro-rated over that period, and require that the owner/operator identify the location of liner defect and remove the wastes above the defective area so that the liner company can make repairs. Clearly, if landfill liners did not fail, warranties for longer than 20 years could be issued. Landfill liner companies do not, at least by their actions, support assertions that liners can be relied upon not to fail. (Lee & Jones 1992:22.)

332 Consequently, how can any assertion of no significant unmitigable impact (DEIS S-21) for any project of the magnitude of the proposed project with an intended active life of 100 years which uses HDPE liners be unjustified? What studies support the DEIS conclusions? Because plastic liners have already been shown to leak as a result of physical damage to liner integrity and chemical interactions between liner and leachate with time, and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 331

Please see responses to Comment Nos. 110 and 330.

Response to Comment No. 332

Please see responses to Comment Nos. 110 and 330.

with unknown responses on the liners 100 or 200 years from now, any assertion of no significant impact even with mitigation measures is an unjustified and dangerous conclusion. Engineers and scientists are repeatedly learning that materials respond in ways not originally predicted or anticipated. Our understanding of the physical and chemical properties of materials changes with time and decades of experience. To assert that landfill liner systems will be predictably unique, unchanging in their characteristics, and behave like new through centuries to come reflects hubris and hope rather than a reasonable estimate and past experience.

333 Liner material performance warranties/installation warranties
From what companies are each of the liners and components of the leachate recovery system to be purchased? What is the length of the manufacturer's warranty for each of the FML and component of the leachate protection system? What are the manufacturer's instructions/specifications for repair to defective materials in the FMLs and leachate protection system? Who does the repairs and what is the length of warranty on repairs? Are there any qualifying or pro-rated conditions on those warranties?

What company will do the liner installation? What are its performance warranties? What conditions apply to installation warranties? Will there be continuous on-site third party inspections during installation?

334 POST CLOSURE CARE: DEIS is inadequate because it fails to discuss US EPA concerns about post-closure care. Will the proposed landfill liners, covers, and LCRS components be constructed and maintained ad infinitum to prevent entrance of moisture with the funding levels anticipated to be available in order to protect the underlying groundwater quality forever? How realistic is the expectation of perpetual maintenance given the current lack of demonstrated long-term social responsibility for spending funds for infrastructure maintenance (roads, bridges, water lines and sewers) in a timely manner? What is the estimated cost of cap and liner maintenance for 100, 150 and 200 years given 1%, 3%, 5% and 10% /year inflation?

If the owner/operator is relieved of responsibility for post-closure maintenance after 30 years, who is responsible for groundwater remediation if the landfill is found to be polluting groundwater after the owner/operator's 30 year responsibility is terminated? Who will be responsible for cover repair and maintenance in perpetuity to reduce flow of moisture into the landfill in order to try to minimize further leachate generation? What financial assurances exist for potential but unknown corrective actions, security measures, off-site damages, or other liabilities which may occur after the established post-closure period?

335 ES BIOLOGICAL RESOURCES/HABITAT LOSS: SALT CREEK ACEC
DEIS text and Appendix are inadequate because essential Plans related to mitigation for on-site and off-site biological impacts are not included in the DEIS and available for public review at

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 333

Please see responses to Comment Nos. 110.

Response to Comment No. 334

This EIS/EIR adequately describes that the proposed landfill would implement the post-closure monitoring required by the RWQCB, the agency designated by the US EPA as responsible for protection of ground water in the State of California. The RWQCB would determine what an adequate post-closure monitoring period would be. RWQCB staff has indicated that a 100-year post-closure monitoring period would be applicable to the Proposed Action (Please see Comment No. 113). The final determination of the post-closure monitoring period for the proposed project would be made by the RWQCB. Arid Operations would submit preliminary closure and postclosure maintenance plans based upon the requirements of CCR Title 14 and Title 23 and Federal RCRA Subtitle D. These plans would include a cost estimate for the condition where the maximum cost for closure of a landfill occurs during the facility's estimated 100-year life. According to state regulations, the purpose of these plans is to allow the CIWMB and the RWQCB to evaluate and assess the reasonableness of the cost estimate for closure and post-closure. A postclosure cost estimate is required to be submitted based on a 30-year post-closure monitoring period after completion of landfilling; however, the RWQCB may require the post-closure cost estimate be prepared for a longer post-closure monitoring period. Please see response to Comment No. 110 for a discussion of the expected performance of the liner and LCRS over time.

The post-closure monitoring period can continue for well beyond the 30 years required for the post-closure estimate if the state agencies determine that the further post-closure care is in the interest of public health and safety, and protection of the environment (please see response to Comment No. 113). Responsibility for closure and post-closure activities is that of the owner of the landfill. Even after the required post-closure care period, the owner of the site would be responsible for environmental contamination from the site. If ownership of the landfill is transferred, the responsibility of performing these state- and federal-required activities would also transfer to the new owner.

Response to Comment No. 335

This EIS/EIR adequately describes mitigation measures for on- and off-site biological resource impacts. Spills of toxic chemicals are routinely cleaned up such that the long-term environmental impacts are insignificant. SP routinely carries materials that are substantially more hazardous than MSW residue and has extensive experience with the clean up of railroad accidents that result in the release of such materials. This EIS/EIR finds that a spill itself may create significant impacts; however, it also finds that the impacts can be mitigated to insignificance through a cooperative clean-up by SP, supplemented by the Applicant if necessary, and involving all responsible agencies. Therefore, more specific details of how spills would be cleaned up could vary according to the circumstances of a given accident, and are not necessary at this time. The commentors feeling that impacts would be significant is noted.

this time.

Where are the details for "Control" in the "MSW Residue Spillage Contingency Plan for Railroad and Canal Operators" (DEIS Table 4-26, p.4-149) for a potential spill or derailment along the SP line, particularly for spills or derailments in sensitive species habitats such as within the Salt Creek ACEC? Neither text DEIS 4-148 nor Table 4-26 nor ES discussion under "habitat loss" (DEIS S-23) are adequate. Why were no details of such a contingency plan included within the DEIS for agency or public review at this time? When specifically questioned, former BLM Wildlife biologist Jim Watkins (1994) (now a biologist with USFWS) expressed concern about the omission of details of such a contingency plan, particularly in sensitive habitat areas. Failure to provide details in the DEIS convinces these reviewers that any spill or derailment along the SP Main Line, particularly within the Salt Creek ACEC, would potentially have very significant adverse impacts despite any conclusions of the DEIS based on what we view as inadequate information in the DEIS text.

336 ES BIOLOGICAL RESOURCES/THREATENED AND ENDANGERED SPECIES:
Fencing detail inadequate: Since desert tortoise burrows may extend up to a meter below soil surface (Appendix D-3:3), will tortoise fencing extend to that depth or deeper to prevent tortoise access to the proposed LF site? How far below the surface will the tortoise exclusion fence extend? Text of S-25 suggests that fencing will be above ground only. Why? What are the details of the BLM tortoise fence specifications? No details are provided in text at DEIS Sec. 2.1.13 p.2-66. This information should be included in DEIS text, why wasn't it? The searches underneath parked vehicles (S-26) suggests that fencing requirements are known to be inadequate. How would tortoises get past the fencing to get under parked vehicles?

Tortoise removal and relocation

337 DEIS is inadequate because it fails to provide references documenting that the Applicant's proposed mitigation measures are either effective or beneficial to desert tortoises with respect to behavior, physiology, social interactions, survival, and reproductive success.. Is removal of desert tortoises to be satisfactory if tortoises are removed to already occupied habitat? How will relocation of desert tortoises off-site impact the existing local populations? Is the habitat adequate to support increased tortoise density? What studies suggest that the proposed mitigation efforts would be successful? It should be noted that desert tortoises are not easily translocated and that "translocating desert tortoises is not likely to be very successful." (USFWS 1993:37.) This is because "desert tortoises have complex social behaviors and intimate familiarity with their home ranges, which are quite large." (USFWS 1993:37.)

What are the details of a Section 7 consultation for relocation of desert tortoises (DEIS 4-32)? Is it to be to a fenced area as per the Draft Tortoise Recovery Plan? Why aren't either the text or summary of the text of the details of the handling of the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 336

BLM-specified fencing is deemed adequate to preclude tortoise entry by the USFWS, therefore stating that BLM-specified tortoise fencing would be implemented is adequate. Figure 2-34, which shows the currently-specified BLM tortoise fencing, has been added to this Final EIS/EIR in response to this comment. Please note that alternative fencing specifications could be implemented by the Applicant provided they are judged to provide at least equivalent protection by the BLM/USFWS. Fencing would extend beneath the ground surface as shown on Figure 2-34.

Searches under parked vehicles are typically only necessary in unfenced areas. Because it is not anticipated that tortoises would be found within cleared and fenced areas, the mitigation measure in question has been revised in this Final EIS/EIR as follows: "The Applicant shall require that, employees inspect beneath parked vehicle(s) when within unfenced and uncleared areas that are within desert tortoise habitat immediately prior to moving the vehicle(s)."

Response to Comment No. 337

Based on BLM's experience with similar projects in the past, the relocation of desert tortoise is expected to be authorized as incidental take by the Biological Opinion for the project when it is issued by the USFWS. Therefore, this EIS/EIR is adequate in its finding that mitigated impacts to the desert tortoise would not be significant.

In addition to the biology mitigation measures identified in this EIS/EIR, the Biological Assessment for the project requires that comprehensive biological monitoring program be implemented if the proposed Mesquite Regional Landfill is approved. As proposed, the biological monitoring program would, 1) ensure compliance with the biological mitigation measures identified in this EIS/EIR, and the terms and conditions included in the USFWS Biological Opinion for the project; 2) ensure the accuracy over time of the environmental impact assumptions in this EIS/EIR; and 3) evaluate the effectiveness of the biological mitigation measures, terms and conditions and determine if they achieve the environmental objectives for which they are intended and if they continue to be needed. Nothing in the Biological Assessment requirements for additional monitoring negates the analysis in this EIS/EIR.

Response to Comment No. 337 (Cont'd)

As outlined in the Biological Assessment for the project, three types of wildlife monitoring would be conducted in association with landfill construction and operation:

- Monitoring for Desert Tortoise Impacts and Occurrence
- Raven Population and Activities Monitoring
- Breeding Bird and Habitat Monitoring

Monitoring for Desert Tortoise Impacts and Occurrence would involve monitoring of the proposed rail spur to determine if it is a deterrent to tortoise movement or a hazard to tortoises crossing the rail. The rail and "beaches" along the spur would be observed preceding the arrival and departure of each train. Tortoise and tortoise sign adjacent to the rail spur would be documented. Tortoises found on the tracks would be relocated from harm's way as necessary in accordance with established USFWS protocol and the Biological Opinion for the project. Rail spur monitoring would be conducted during the first two years of operation, and would be continued until determined no longer necessary by BLM.

A 1,000-foot wide swath along the western perimeter of the proposed landfill and the tortoise relocation area would also be monitored for desert tortoise to document tortoise and tortoise sign. Data including size, sex, and condition would be recorded, and radio transmitters would be used on five males larger than 250 mm carapace length to aid in rediscovery of these individuals. This monitoring would be conducted beginning in 1995 to gather baseline data, in the first two years of operation, and then once every four years to determine if tortoises continue to use habitat adjacent to the proposed landfill and to observe tortoises in the relocation area over time.

Raven Population and Activities Monitoring would involve collection of data on the number of ravens observed in the vicinity of the proposed landfill seasonally to detect changes over time. Observations on feeding behavior including predation of desert tortoises, and nesting/breeding activity would also be noted. This monitoring, which began in 1994, would be conducted during two years of pre-operation, the first two years of operation, and then repeated every third year. BLM would determine when monitoring would no longer be required. Please see response to Comment No. 341 for additional details.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 337 (Cont'd)

Breeding Bird and Habitat Monitoring would involve establishment of four monitoring plots; two adjacent to the proposed landfill, and two more distant from the project to serve as controls. Each of the 160 acre plots would be examined on an annual basis in the spring to record data pertaining to vegetative density, dominance and diversity; composition and abundance of breeding birds, and abundance of desert tortoises and other terrestrial species. Recorded data would be used to establish indices of population levels, densities, species composition, relative abundance. Data from plots adjacent to the proposed landfill would be compared to data from control plots. This monitoring, which began in 1995, would be conducted for one year prior to landfill operation and four consecutive years of start of landfill operation, followed by repetitions of two consecutive years of monitoring during subsequent five-year periods. BLM would determine when monitoring would no longer be required.

For additional details regarding components of the biological monitoring program proposed by the Applicant, please see the Biological Assessment for the Mesquite Regional Landfill, which is available for public review during normal business hours at the BLM El Centro Resource Area Office, 1661 South Fourth Street, El Centro, California.

Interim Techniques Handbook for Collecting and analyzing Data on Desert Tortoise Populations and Habitats (Arizona Game and Fish Dept. 1990, Chap. III (DEIS 4-32) included in the DEIS or its Biological Resources Appendix D?

Why isn't the "program of instruction to all employees regarding the desert tortoise" (S-26) not included for both BLM and public review and comment at this time? When will the details of such a program be available for public and BLM review and comment?

Because both the DEIS text and Biological Resources Appendix provide little if any detail about the proposed mitigation measures, any assertion of no significant impact with mitigation measures is unwarranted. How do the preparers of the DEIS justify their conclusions in the absence of detailed plans and discussion?

338 How does the DEIS justify such conclusions when Drs. Boarman and Stebbins (biologists with considerable experience studying desert reptiles) expressed serious concerns and reservations about the potential effectiveness and benefits to desert tortoises from similar mitigation measures proposed by the Eagle Mountain LF Applicant? (Charpied 1994, and Moskowitz 1994 citing the Administrative Record for the Eagle Mountain LF.) (Exhibit X)

ES: THREATENED/ENDANGERED SPECIES - - Raven control

Ravens are included among the members of the permanent bird population (Appendix D-1:52).

339 Why doesn't the DEIS contain a "Raven Control Plan" for public and agency review at this time? DEIS text merely includes a vague "Raven Control Plan Flow Chart" (DEIS 4-36). This is grossly inadequate because neither it nor the text on DEIS 4-35 and 4-37 are contain any detail other than to note that details would be revealed during Section 7 consultation. Are any and all plans prepared during and for Section 7 consultation for the proposed landfill project subject to public comment and review?

In response to questions, Watkins (1994) stated that the preparers of the DEIS had repeatedly failed to provide any adequate detailed proposals for a "Raven Control Plan" for review by BLM wildlife biologists. Failure to provide details of an adequate proposed raven control plan when specifically requested for such information by BLM biologists raise serious questions about the potential adequacy of such plans in the future if public review is not possible during the period for public comment on the DEIS.

What are the guidelines included in the Raven Management Plan for the California Desert Conservation Area? Why aren't they included within the DEIS or its Biological Resources Appendix? How effective have they been elsewhere? Please cite references.

340 S-28; DEIS 4-35 and 4-37 state that "passive raven control" shall include "placement of cover at the end of each work day" and "other nonlethal measures to minimize raven feeding at the site." Why does the DEIS fail to identify the "other non-lethal" raven

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 338

Please see response to Comment No. 197.

The proposed Eagle Mountain Landfill Project includes impacts to USFWS-designated Critical habitat for the desert tortoise. Also, the compensation land would be land adjacent to the Eagle Mountain Railroad, subject to Eagle Mountain-related rail haul impacts. The proposed Mesquite Regional Landfill Project would impact Category III (lowest quality) habitat and provide compensation near the Chuckwalla Bench ACEC, in USFWS-designated Critical habitat for the desert tortoise.

Response to Comment No. 339

Birds in general and ravens specifically are controlled at many landfills and other facilities internationally. For example, the Mesquite Mine is currently operating adjacent to the proposed site and does not attract ravens according to the quarterly raven monitoring studies being conducted for the proposed project.

A local landfill example of this can be seen at the City of San Diego Miramar Landfill, where MSW is landfilled just 1,500 feet from the active runway. The 1994 U.S. Navy/City of San Diego Programmatic EIS/EIR for the Miramar Landfill General Development Plan calls the Miramar Landfill bird control plan "highly effective" and states that the plan "has been used as a model internationally." Currently, the City of San Diego has suspended it's raven control activities at the Miramar landfill because they are not necessary.

It is not possible to predict the exact procedures to be implemented to control ravens because it is not possible to predict if they would be attracted, how many would be attracted, or what specifically would attract the birds. There are many variables that would have to be considered by the appropriate regulatory agencies in developing a control plan, if such a plan is ever needed. Flexibility would be neededto implement the proper measure(s) at the proper time. This EIS/EIR does establish a mechanism whereby BLM and County can judge if the landfill does attract ravens and if those ravens impact the desert tortoise, and it commits the Applicant to control ravens if it is shown that raven-related impacts to the desert tortoise are landfill-related. Therefore, this EIS/EIR is adequate.

Response to Comment No. 339 (Cont'd)

All documents prepared for the Section 7 consultation are public and available for public review. BLM considered the raven control information provided in the Draft EIS/EIR adequate. Otherwise the Draft EIS/EIR would not have been released for public review.

The 1990 Draft Raven Management Plan for the California Desert Conservation Area is available for public review during normal business hours at the BLM El Centro Resource Area Office at 1661 South 4th Street, El Centro, California. It was considered in preparing the EIS/EIR; however, the Draft EIS/EIR did not specify that the Raven Management Plan is a draft plan that has not yet been finalized. The Final Raven Management Plan would be considered by BLM and the Applicant in preparing any future project-related raven control plans. This plan has been partially implemented and is currently being modified. Evaluation of its effectiveness is underway.

Response to Comment No. 340

Please see response to Comment No. 339 It is expected that any ravens that might be attracted to the proposed landfill can be controlled such that they would not significantly impact desert tortoise populations. The environmental controls implemented at a landfill are a greater determinant of raven attraction than the quantity of MSW disposed.

control measures? What are those "other nonlethal" raven control measures? At what other specific landfills have these passive and other nonlethal raven control measures been used? What is/was the daily rate of deposition of MSW at each of the identified landfills where such raven control measures were employed? What is the likely success of such passive raven control practices at the proposed landfill site?

341 DEIS 4-35 states that the Applicant began a "raven monitoring program in January of 1994 to provide data on raven populations in the general landfill area." Why did the project applicant wait until 1994 rather than begin such monitoring of population data in 1992 or earlier in a more timely manner so such information could be included in the DEIS and/or Biological Resources Appendix D for public and agency review and comment? From Appendix D it is painfully apparent that other biological resource studies were being conducted and finalized even in May 1992. The Draft Recovery Plan for the Desert Tortoise (Mojave Population (USFWS April 1993) discusses the importance raven predation especially on younger age classes of desert tortoise (USFWS 1993:8,9) and cites a 1990 reference by BLM's Kristin Berry.

Why wasn't the raven monitoring study completed by the date of release of DEIS and thereby made available for public review? Why doesn't DEIS require a raven monitoring program for the life of the LF or until federal agency temporarily/conditionally determines it to be unnecessary? Why doesn't DEIS required minimum of two years of preparation and post-closure monitoring studies as required by USFWS 1992 Biological Opinion for the Eagle Mountain Project (USFWS 1992:3)? Would raven monitoring occur at the proposed LF site at regular intervals throughout its active life? Monitoring is not the same as mitigation.

342 Consequently, the DEIS text and Biological Resources Appendix D discussion of biological resources, particularly potential impacts of potential raven predation on the threatened desert tortoise, is incomplete and inadequate.

343 Will any/all alternate plans (DEIS S-28; 4-37) be subjected to public review and comment? If not why not? What are the "potential alternative" passive and active bird control measures contemplated? Why doesn't the DEIS text identify what these passive and active bird control measures are? At what specific sites and for what projects (and of what active project acreage) have each of the proposed active and/or passive bird control measures been used? What was/is the effectiveness and or success of each proposed method? What are the specific references which can be reviewed by concerned members of the public? The public should not have to ferret out such information.

344 What is the "alternative cover material" (DEIS S-28; 4-37) intended for use if passive raven control methods are ineffective? What is the intended source of the proposed alternative cover? Why isn't the cover material or its source identified or referenced in text of 4-37? What are the chemical and/or biological properties

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 341

The raven monitoring plan was implemented in January 1994, shortly after BLM reviewed the preliminary draft of Chapter 4 of the EIS/EIR and informed the Applicant that such monitoring was necessary to establish a baseline against which impacts could be judged in the future. Therefore the monitoring could not be completed by April of 1994. The raven monitoring plan calls for monitoring by the Applicant for as long as monitoring is required, as determined by BLM, unlike Eagle Mountain that sets a specified time period regardless of whether monitoring is necessary or not. The Draft EIS/EIR stated that baseline data would continue to be collected for a minimum period of one year before the start of landfill operations. It is clear that at least two years of baseline data will be collected before landfill operations can begin. At this time, raven monitoring is required as currently specified throughout and beyond the landfill's active life, or until the BLM agrees that it can be changed. Based on the future results of raven monitoring, it may be possible to scale back monitoring or to eliminate it all together. It is recognized that monitoring is not the same as mitigation.

Quarterly raven monitoring reports are prepared and submitted to BLM. These reports are available for review at the BLM El Centro Resource Area Office. A summary of the monitoring results for calendar year 1994 is as follows:

The number of raven observations during the early morning period (0600-0900) ranged from 0 to 7 birds per 75 minutes of observation, with the cumulative total of 61 raven observations (not necessarily individual birds) during calendar year 1994. Raven observations during the late morning period (0900-1200) ranged from 0 to 5 birds per 75 minutes of observation, with a cumulative total of 40 raven observations over the same period. Raven observations during the early afternoon period (1200-1500) ranged from 0 to 4 birds per 75 minutes of observation, with a cumulative total of 48 observations over the same period. Raven observations during the late afternoon ranged from 0 to 4 birds per 75 minutes of observation, with a cumulative total of 51 observations during the same period. Overall, a total of 190 raven observations occurred at the 20 observation sites during the 51 days of monitoring in 1994, or less than 4 observations per monitoring day.

Response to Comment No. 341 (Cont'd)

Based on 51 days of road surveys covering approximately 147 miles of paved and dirt roads a cumulative total of 40 raven observations (not necessarily individual birds) occurred, or less than one observation per day of monitoring. . Data on the spatial distribution of common ravens for the 51 days of point count observations were so infrequent that no trends relative to land use could be established. The greatest frequency of raven observations were at those point counts in the vicinity of the ISDRA and the Coachella Canal. Other than these two locations, distribution and land use utilization by ravens was unpredictable.

During March and April 1994, eight days of nest searches were conducted in the study area (Response Figure 10). No nests were located through these field searches and the biologists were fairly confident that no nests were present on man-made structures in the study area. Most cliffs and appropriate crevices were searched for nests with none found. However, because of access problems along the southern Chocolate Mountains, not all areas of potential nest sites were searched. However, when spatial point count data were examined for the period between March and April 1994, no patterns emerged relative to directions of ravens toward the southern Chocolate Mountains. A directional preference toward the Chocolate Mountains would indicate potential raven nesting.

Ravens were not observed scavenging on road kills by the surveyors.

Response to Comment No. 342

As described in the previous responses, this EIS/EIR completely and adequately describes impacts to and mitigation for biological resources.

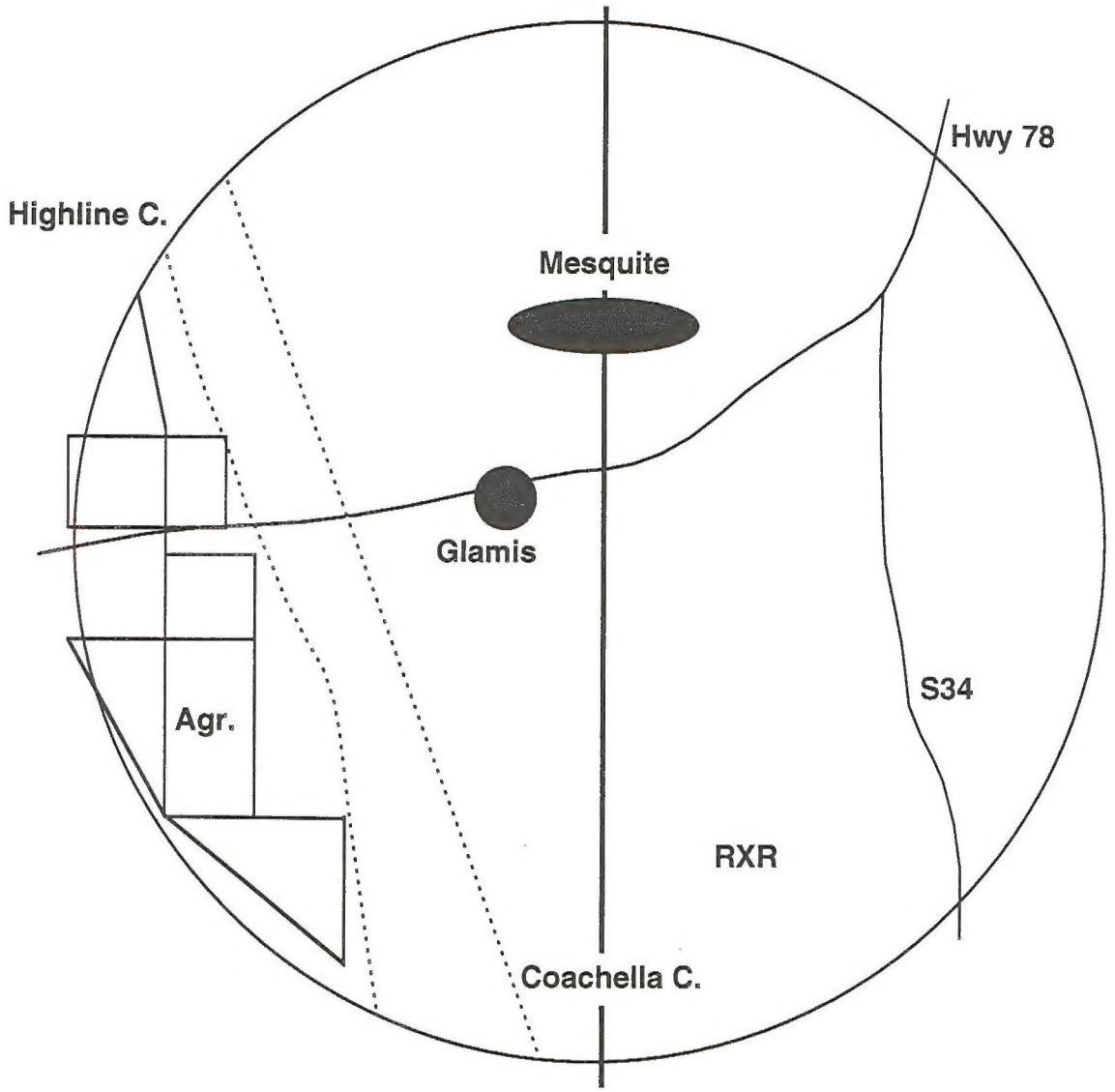
Response to Comment No. 343

The plans would be available for review by contacting the BLM El Centro Resource Office or County of Imperial Planning and Building Department. Please see response to Comment No. 339

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 344

This EIS/EIR discloses to the public that alternative cover may be a means of deterring ravens should overburden and heap leach materials be insufficient to deter ravens. If raven monitoring shows that raven populations are impacting desert tortoise because of the proposed landfill, the BLM would require the Applicant to work with agencies and organizations with expertise and experience with ravens on bird control to mitigate the impacts to the tortoise. Alternative cover may be one of the methods identified. At this time, there is no alternative cover material intended for use; therefore, it is not possible to disclose the source of the alternative cover material. Please see response to Comment No. 339.



SOURCE: McKernan, 1995.

Proposed Mesquite Regional Landfill

Areal Extent of Raven Survey

RESPONSE FIGURE

10

of this proposed alternative cover? What are the potential impacts on other biological resources or groundwater resources and/or air quality?

345 DEIS (S-28; 4-37) lists the possibility of using "conditioned taste aversion, nest destruction, perch site reduction, and hazing" as components of an "active raven control program". Why were no details of these types of actions provided in response to requests by BLM biologist Watkins? At what specific landfills and/or other projects have such methods been used to deter raven activity? How successful has each method been separately or in combination? How likely is it that such methods would be successful in an "oasis" type of situation such as at a remote site in a desert area with such low rainfall? What are the published references discussing the uses and effectiveness of each listed technique for raven control? Please provide references for the utilization of such techniques in desert environments.

346 Why aren't the details of any "active raven control plan" included in the DEIS and/or Appendix D for public review and comment? Our experience and discussion with other biologists indicates the listed methods of raven control are unlikely to be successful.

347 In the absence of detailed plans and/or any cited references indicating the effectiveness of any of the raven control measures at other landfills or other sites, any assertion of "No Significant impact with Mitigation" for any raven control measures is unwarranted. How do the preparers of the DEIS justify that conclusion in the absence of any detailed plans and in the absence of any referenced studies where the listed methods of raven control have been implemented?

ES: THREATENED/ENDANGERED SPECIES - - Rail Spur

348 What criteria will be used to determine the period of desert tortoise activity/inactivity for purposes of rail-spur construction and/or monitoring potential impacts including capture and relocation? Does "period of activity" refer to daily or seasonal activity? What about extended periods of seasonal activity in mild winters and or summers during which summer rains provide longer periods of vegetation for tortoise forage?

Will the results of monitoring and the development of a long-term mitigation plan that protects the desert tortoise (DEIS S-29; 4-38) be subject to public review and comment? If not why not?

What actions will be taken to minimize the impacts of noise and vibration on desert tortoise behavior and socialization? How effective have gravel benches been in reducing tortoise mortality? Where and for what time period have they been used for this purpose? What references document the successes elsewhere?

ES: MSW SPILL CONTINGENCY

Why wasn't the MSW residue spill contingency plan to contain
349 any MSW residue spill included within the DEIS of Biological

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 345

Please see response to Comment No. 339. This EIS/EIR discloses to the public that conditioned taste aversion, nest destruction, perch site reduction, and hazing may be components of an active raven control plan. If raven monitoring shows that raven populations are impacting desert tortoise because of the proposed landfill and that passive controls are not working, the BLM would require the Applicant to work with agencies and organizations with expertise and experience with ravens on bird control to mitigate the impacts to the tortoise. Conditioned taste aversion, nest destruction, perch site reduction, and hazing may be among the methods identified. At this time, the specifics of an active control plan have not been determined. The existing Mesquite Mine does not attract ravens, despite water sources and covered trash containers present on-site.

Response to Comment No. 346

Please see response to Comment No. 339 This commentor's assertion that raven control would be unsuccessful is noted.

Response to Comment No. 347

The commentor's statement that the EIS/EIR conclusion is unwarranted is noted. Please see response to Comment No. 339.

Response to Comment No. 348

The periods of desert tortoise activity will be specified in the Biological Opinion that will be issued by the USFWS, based on seasonal conditions. The BLM will not issue a Record of Decision for the Proposed Action until the Biological Opinion has been issued by the USFWS.

The results of monitoring and any long-term mitigation plans that may be required would be available for public review and comment by contacting the BLM El Centro Resource Office or County of Imperial Planning and Building Department.

Response to Comment No. 348 (Cont'd)

There is no evidence that railroad noise or vibration significantly impact desert tortoise. In fact, the desert tortoise is known to build burrows in railroad berms, suggesting that railroad noise does not impact the tortoise. Beaches were recommended by Dr. Alice Carl, a biologist with considerable desert tortoise expertise. This recommendation will be reviewed by the USFWS during Section 7 consultation.

Response to Comment No. 349

Please see response to Comment No. 335. The commentor's disagreement that the level of detail provided for the MSW spill contingency plan is adequate is noted.

Resources appendix for public review and comment? It is preposterous to assert that impacts would be "Not Significant" with mitigation when details of the "plan" have not yet been released for public comment and review. The generic table failed to provide meaningful detail.

ES: LAND EXCHANGE TO OFFSET DIRECT IMPACTS TO THREATENED OR ENDANGERED SPECIES/BIOLOGICAL IMPACTS

350 Why doesn't the text of Table S-1 referencing land "to offset direct impacts to 3,657 acres of BLM Category III desert tortoise habitat" of "an equal or higher number of acres of Category I habitat to the BLM acquired in the Chuckwalla Bench ACEC" (S-30) match text of "Offered Exchange Parcels" (DEIS 2-6)? Is the acreage listed in Table S-1 in addition to that listed in DEIS 2-6?

351 DEIS 2-6 cites an exchange of 2241.96 Ac in Riverside County's Santa Rosa Mountains National Scenic Area and Imperial County's Chuckwalla Bence ACEC for 1750 Ac of federal land at the proposed project site. Why were exchange parcels selected from the Santa Rosa Mountains rather than from proposed wilderness areas located in Imperial County? Many Imperial County proposed wilderness areas have inholdings which should be acquired for management by BLM. The Jacumba Mountains wilderness Study Area is one such area where development of inholdings would be most inappropriate. Another alternative, would be acquisition and exchange of private inholdings within Areas of Critical Environmental Concern for biological resources including threatened or listed species proposed for listing as threatened, including in the Chuckwalla Bench ACEC. There are a number of such private inholdings which would pose serious federal management problems if developed intensively.

352 Further DEIS text references land transfer to "compensate for biological impacts on the proposed project site" (DEIS 2-6). Why doesn't DEIS 2-6 text indicate the acreage or specific location of land for compensation? Why is the project applicant only required to deed an equal (1:1 ratio) number of acres for habitat compensation for lost desert tortoise habitat at the proposed Mesquite Landfill site? Eagle Mountain used a 2.5:1 ratio as compensation for loss of Category III habitat. Why should the compensation ratio be any less for a project with such adverse impacts in Imperial County?

353 Habitat lost is habitat lost and no compensation will result in impacts being "not significant". Surely the cumulative impacts of the proposed landfill, in addition to the adjacent existing Gold Fields Mesquite Mine and off-highway vehicle activity in addition to rail and roadway impacts will be significant.

ES: TRANSPORTATION/MSW Residue delivery by truck

354 Table S-1 mitigation measure under transportation impacts references "Local MSW residue delivery trucks"(DEIS S-32). However, under Sec. 2.1.4.7 discussion of highway traffic trip generation, the text specifically states that: "The Applicant does not propose to haul MSW residue by truck during normal operations." (DEIS 2-35.) Further text indicated the potential for local MSW

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 350

The acreages are different because the exchange parcels and compensation parcels are two different things. The exchange parcels are to reimburse the citizens of the United States for the federal land that would be conveyed to the Applicant if the Proposed Action is approved. The compensation lands are required to mitigate the residual impacts after mitigation measures designed to minimize construction and operation impacts are implemented. The total amount of land that would be conveyed to the BLM would be the sum of the area that comprises the offered exchange parcels and the compensation parcels.

Response to Comment No. 351

Please see response to Comment No. 304.

Response to Comment No. 352

This EIS/EIR requires that the compensation lands be Category I habitat for the desert tortoise located in the Chuckwalla Bench ACEC. The required acreage is provided in Section 4.1.3.3 of this EIS/EIR, under the heading Tortoise Habitat Compensation. The compensation parcels identified by the Applicant are in Imperial County. The ratio of impacted lands to compensation lands is derived from a BLM formula that considers the quality of the habitat to be impacted. Eagle Mountain required 2.5:1 because the rail spur that would connect the SP Main Line with the Eagle Mountain Landfill site would impact Category 1 habitat for the desert tortoise. The proposed Mesquite Regional Landfill would only impact Category III habitat. Therefore, only a 1:1 ratio would be required for the proposed Mesquite Regional Landfill.

Response to Comment No. 353

The commentor's statement that no compensation will result in impacts being not significant is noted. Providing like or higher quality habitat as compensation for impacted habitat is a generally-accepted approach to the mitigation of impacts to upland habitats nationwide. The mitigation measures described in this EIS/EIR would reduce project-related impacts, including cumulative impacts, such that they would not be significant.

Response to Comment No. 354

The Applicant does not propose to haul MSW residue by truck under normal operations. The Applicant would accept MSW residue delivered by truck from Imperial County. These are both true statements. It is not currently proposed or anticipated that MSW residue from Imperial County would be landfilled at the proposed landfill; however, should Imperial County decide to send its MSW residue to the proposed landfill by truck in the future, it would be accepted. This EIS/EIR addresses the potential impact of Imperial County MSW being picked up by an MSW-residue train at Niland. It is not possible to predict if Imperial County would site an intermodal facility or its future location. Therefore, impacts from an intermodal facility cannot be addressed in this EIS/EIR. Please see Table 1-3, No. 13b.

residue truck haul from within Imperial County. Is local MSW residue from Imperial County anticipated or is it not? Why the difference in statements even on the same page of DEIS? If MSW residue were to be accepted from Imperial County at some time in the future would it be by truck haul or rail haul? If rail haul, potential siting and impacts of intermodal facilities must be addressed.

355 In Chapter 2, the DEIS states that: "Short term truck haul would be used in the event of disruption to the SP Main Line prevented MSW residue delivery by rail" (DEIS 2-103). Text of Sec. 2.4.4.1 further describes the "most reasonable route for truck haul of MSW residue from the Los Angeles basin" as going though the cities of Orange County, San Diego, through Imperial County on I-8 and 111 and Hwy 78. While portions of these routes may not be urban now, it likely that they will be in the future. Why then does Table S-1 suggest that truck haul in the event of interruption of rail service would be on a truck route that avoids population centers? Don't Orange County cities and San Diego count as population centers? What are the potential environmental impacts of 1,600 to 1920 one way MSW truck trips per day (DEIS 2-103) along portions of I-5, I-805 and I-8 in already congested areas?

ES: TRANSPORTATION/MSW residue contingency plan:

356 Why wasn't the MSW residue contingency plan (S-33) prepared and included in the DEIS for public comment and review? If the plan has not yet been prepared how can the DEIS authors conclude that the identified significant potential for accidents of trucks and trains hauling MSW residue would be reduced to a level of non-significance? How can or why should the public feel assured that the potential of accidents and spills would be insignificant when no truck route is specified and described in densely populated areas along the truck route other than along interstates and state highways?

ES: NOISE

357 Why does DEIS ignore the fact that among the "nearby receptors" which could be impacted by the noise associated with the LF operations including the transit along rail lines are birds, mammals, reptiles and amphibians in addition to human receptors? Desert rodents, amphibians and reptiles have been found to be very sensitive to the sounds of off-road vehicle activity (Bondello 1976; Bondello and Brattstrom 1979) and would also be likely to be impacted by transport and operational noises and vibrations associated with the proposed project.

Review of other ES sections is included with related DEIS discussions.

CHAPTER 1. DEIS INTRODUCTION

Sec. 1.1 PURPOSES OF PROPOSED PROJECT

358 If all communities in Southern California achieve the AB 939 mandated 25% reduction in waste stream by 1995 and a 50 % reduction in waste stream by 2000, what is the projected needed annual waste capacity in landfills by the year 2000? With such a substantial

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 355

The sentence in question has been revised in both Table S-1 and in Section 4.1.6.3 as follows: "Prior to project startup, the Applicant shall work with the appropriate state and local agencies regarding the identified truck route that avoids narrow roads through population centers and minimizes potential environmental effects related to a temporary interruption of rail service that requires truck transport of MSW residue. Also, please see response to Comment No. 75. The emergency truck route would be impacted if emergency trucking ever were used, but impacts would not be significant because they are very unlikely to occur and because they would only occur for a very short time.

Response to Comment No. 356

Please see response to Comment No. 335 and 355.

Response to Comment No. 357

The environmental impacts of the proposed project on biological resources are evaluated in Sections 3.1.3 and 4.1.3 of the Draft EIS/EIR. Noise was considered as a potential impact to these species. The analysis concluded that no significant impact to wildlife would result from the proposed project.

Noise events due to additional trains on the existing SP Main Line would only incrementally add to an existing noise corridor. The SP Main Line has existed for 100 years with varying levels of traffic, sometimes higher and sometimes lower than current levels. Wildlife has adapted to noise in that area and would not be substantially impacted by noise from project traffic.

Noise impacts from the use of the proposed rail spur would not be significant because the noise from the rail spur would only impact a limited area of low quality habitat adjacent to the proposed rail spur; the area is already impacted by periodic noise from aircraft flying overhead, OHV's, and gravel mining operations; and rail noise would only occur for approximately two hours per day along the length of the entire spur (i.e., 10 one-way 10-minute trips per day). Also, please see response to Comment No. 348.

Response to Comment No. 358

The projected waste stream for each of the jurisdictions in Southern California was given in Section 1.1.3.2 of the Draft EIS/EIR. The paragraphs that follow Table 1-1 represent the most recent data available at the time the Draft EIS/EIR was published, and to the extent available from the generating jurisdictions, this information included the effects of AB 939.

Please see the last two paragraphs of the response to Comment No 200. Please see response to Comment No. 313. The permits that would be signed by the permitting agencies and the Applicant would be adequate to limit environmental efforts to those described in this EIS/EIR and any other future environmental documents.

reduction in waste going to landfills why are there proposals for so many mega landfills in Southern California?

Is it for Southern California MSW residue or is the real purpose of such proposed landfills to import trash by rail or truck travel from outside California? If residues come from outside the state of California, how can the project proponents hold communities in other states to the requirements of AB 939 or CIWMB exemption? How could CIWMB issue an exemption for communities in other states where CIWMB has no jurisdiction? If communities outside California cannot be held to AB 939 standards, and interstate commerce in waste cannot be excluded from private MSWLFs, what are likely legal ramifications of attempting to have one set of standards for California communities and a different but lower standard for non-California communities? Will all partners sign an agreement (legally binding on all existing and all future partners/owners and/or operators) NOT to import MSW waste or any other waste from other states and other countries?

Sec. 1.1.3 MSW SOURCES

359 DEIS 1-3 states that the DIES discussion "provides details for potential MSW residue sources in Southern California area" ...from as far north as San Bernardino County. However, the study cited in determining the amount of MSW residue likely to be hazardous waste is a study from Marin County in Northern California (DEIS 2-59). Because of the amount of industrial activity in southern California, we believe reliance on data from Marin County in Northern California is unlikely to be representative of the MSW residue stream in Southern California communities which are asserted to be the waste source for the proposed landfill. Why weren't data from Southern California used in determining the percent of hazardous waste in MSW since the DEIS purports to provide "some details for the potential MSW residue sources in the Southern California area"? (emphasis added.) What is the composition of MSW in Southern California? What percent is residential, commercial, industrial, and construction? How does the composition of Southern California waste compare with Marin County waste? How does it compare from county to county, and from community to community?

What are the average daily tonnages of MSW anticipated to arrive at the proposed LF from each waste category (residential, commercial, industrial, etc.) and what waste type (eg. construction, demolition, diapers, etc.) is projected from the present, for next 25 years, and to closure date? How would the waste stream change if another or several other MSWLFs are constructed in Southern California? How would the waste stream change depending on the community source? How would the composition of the MSW residue type influence the generation of leachate, LFG and volatile organic compounds (VOCs) and therefore the leachate recovery and LFG collection system requirements and functioning? How would incoming tonnage be measured?

Of the 20,000 tpd current total permitted capacity of transfer stations operating in Los Angeles County (DEIS 1-3), how many and of what capacity are owned/operated by Western Waste Industries?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

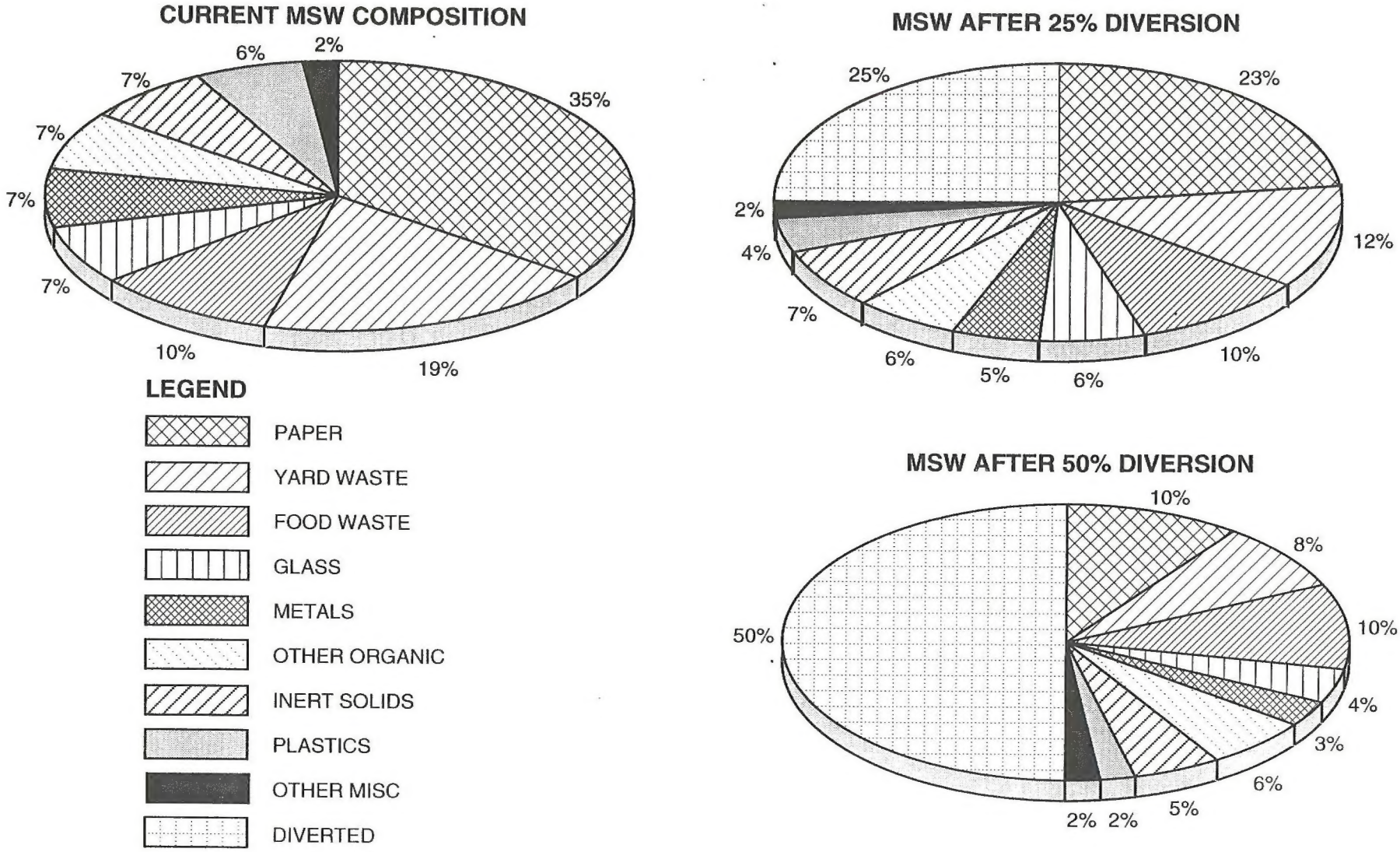
Response to Comment No. 359

Response Figure 11 shows the current and expected MSW residue composition for Southern California. The 25 and 50 percent waste stream compositions are estimates based on recycling technology and transfer station/MRF sorting limitations.

The details of the waste stream composition for the proposed Mesquite Regional Landfill asked for by the commentor cannot be determined at this time since the communities that would choose to use the landfill have not yet been identified. This kind of detail is not required for a NEPA or CEQA evaluation. Response Tables 14, 15, and 16 provide 1990 solid waste composition data from the Southern California Area. This is the most recent data available for the Southern California Area.

MSW residue would be weighed at the transfer station prior to departure to the intermodal facility. As described in EIS/EIR section 2.1.4.9, records would be kept on each container of MSW residue that is hauled to the proposed landfill. The weight of the MSW residue in the container would be included in this information.

Western Waste Industries currently operates one transfer station in the City of Carson, near Los Angeles. Its rated capacity is 2,600 tons/day. An application is pending to raise this capacity to 5,000 tons per day.



SOURCE: Environmetnal Solutions, Inc., 1994.

Proposed Mesquite Regional Landfill

Estimated Municipal Solid Waste Compositions

RESPONSE FIGURE **11**

REGION: Los Angeles Area

REVISED 2-Feb-95

AVERAGE 1990 WASTE STREAM COMPOSITION OF SAMPLED REGION JURISDICTIONS
INCLUDING DIVERSION OF EXCLUDED WASTE TYPES

BASED ON PRELIMINARY DRAFT SOURCE REDUCTION AND RECYCLING ELEMENTS SUBMITTED BY JURISDICTIONS

1990	TONS DISPOSED	DISPOSAL RATE(%)	COMPOSITIO DISPOSAL(%)	TONS DIVERTED	DIVERSION RATE(%)	COMPOSITIO DIVERSION(%	TONS GENERATED
TOTAL	16,256,610	78.4	100.0	4,707,014	23.6	100.0	19,982,824
TOTAL PAPER	4,513,060	74.5	29.8	1,546,560	28.5	32.9	6,059,810
CARDBOARD & BAGS	1,276,379	86.8	8.4	662,091	34.2	14.1	1,937,470
MIXED PAPER	1,626,085	86.3	10.0	202,594	11.7	4.3	1,728,680
NEWSPAPER	803,280	66.1	5.3	412,226	33.9	8.8	1,215,507
HI-GRADE LEDGER PAPER	256,833	54.2	1.7	216,776	45.8	4.6	473,609
OTHER PAPER	551,472	92.5	4.3	52,873	7.5	1.1	704,345
TOTAL PLASTICS	1,099,488	95.6	7.2	50,186	4.4	1.1	1,149,684
HDPE CONTAINERS	149,279	92.4	1.0	12,307	7.6	0.3	161,585
PET CONTAINERS	35,918	83.1	0.2	7,313	16.9	0.2	43,231
FILM PLASTICS	338,729	95.2	2.2	17,224	4.8	0.4	356,953
OTHER PLASTICS	574,573	97.7	3.8	13,342	2.3	0.3	587,915
TOTAL GLASS	534,552	73.2	3.5	195,756	26.8	4.2	730,308
REFILL GLASS CONTAINERS	9,446	89.7	0.1	1,081	10.3	0.0	10,527
REDEMPTION VALUE GLASS	169,049	54.1	1.1	143,166	45.9	3.0	312,216
OTHER RECYCLABLE GLASS	247,702	83.4	1.8	49,239	16.6	1.0	296,942
OTHER NON-RECYCLABLE GLASS	108,354	97.9	0.7	2,270	2.1	0.0	110,624
TOTAL METALS	880,458	68.5	5.8	390,987	30.6	8.3	1,281,445
ALUMINUM CANS	43,372	45.6	0.3	51,816	54.4	1.1	95,189
BI-METAL CONTAINERS	9,681	42.1	0.1	13,332	57.9	0.3	23,013
FERROUS & TIN CANS	589,192	68.4	3.9	271,816	31.6	5.8	861,008
NON-FERROUS & AL SCRAP	107,250	69.5	0.7	47,040	30.5	1.0	154,291
WHITE GOODS	85,589	95.4	0.6	4,160	4.6	0.1	89,749
OTHER METALS	55,373	95.2	0.4	2,822	4.8	0.1	58,196
TOTAL YARD WASTE	2,077,934	90.8	13.6	210,155	9.2	4.5	2,288,089
YARD WASTE	2,077,934	90.8	13.8	210,155	9.2	4.5	2,288,089
TOTAL OTHER ORGANIC	4,038,644	88.7	26.5	514,921	11.3	10.9	4,554,565
FOOD WASTE	1,275,131	84.9	8.4	226,061	15.1	4.8	1,501,192
TIRES & RUBBER	200,150	88.5	1.3	25,885	11.5	0.5	226,035
WOOD WASTES	1,504,663	91.7	9.9	136,111	8.3	2.9	1,640,774
CROP RESIDUES	7,438	43.9	0.0	9,491	56.1	0.2	16,929
MANURE	70,771	49.4	0.5	72,382	50.6	1.5	143,153
TEXTILES & LEATHER	468,516	93.7	3.1	31,455	6.3	0.7	499,971
MISCELLANEOUS ORGANIC	358,891	98.3	2.4	6,267	1.7	0.1	365,157
DISPOSABLE DIAPERS	154,083	95.5	1.0	7,270	4.5	0.2	161,353
TOTAL OTHER WASTE	1,916,964	51.6	12.6	1,795,695	48.4	38.1	3,712,649
INERT SOLIDS	1,284,261	41.8	8.4	1,785,003	58.2	37.9	3,069,264
HOUSEHOLD HAZARDOUS & CONTAINERS	94,698	99.6	0.6	414	0.4	0.0	95,112
FURNITURE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
BULKY ITEMS	49,352	98.0	0.3	982	2.0	0.0	50,334
OTHER & UNSORTED WASTE	488,644	98.1	3.2	9,296	1.9	0.2	497,940
TOTAL SPECIAL WASTES	183,518	98.5	1.2	2,754	1.5	0.1	186,273
ASH	24,352	100.0	0.2	0	0.0	0.0	24,352
SEWAGE SLUDGE	14,933	100.0	0.1	0	0.0	0.0	14,933
INDUSTRIAL SLUDGE	390	100.0	0.0	0	0.0	0.0	390
ASBESTOS	3,082	100.0	0.0	0	0.0	0.0	3,082
AUTO SHREDDER WASTE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
AUTO BODIES	0	0.0	0.0	468	100.0	0.0	468
OTHER SPECIAL WASTE	140,762	98.4	0.9	2,286	1.6	0.0	143,048

POPULATION OF SAMPLED JURISDICTIONS = 12,043,248
TOTAL POPULATION OF REGION = 12,122,262
% OF REGION POPULATION = 99.3%
NUMBER OF SAMPLED JURISDICTIONS = 131
TOTAL NUMBER OF JURISDICTIONS IN REGION = 132
% OF REGION JURISDICTIONS = 99.2%

EXCLUDED WASTE TYPES

INERT SOLIDS (CONCRETE, ASPHALT, DIRT, ETC.)
SCRAP METAL (FERROUS, NON-FERROUS, AUTO BODIES, ETC.)
AGRICULTURAL WASTES (CROP RESIDUES, MANURE, ETC.)
WHITE GOODS (MAJOR APPLIANCES, WASHERS, DRYERS, ETC.)

#DIV/0! = zero (0)

REGION: Inland Empire

AVERAGE 1990 WASTE STREAM COMPOSITION OF SAMPLED REGION JURISDICTIONS

REVISED 2-Feb-95

INCLUDING DIVERSION OF EXCLUDED WASTE TYPES

BASED ON PRELIMINARY DRAFT SOURCE REDUCTION AND RECYCLING ELEMENTS SUBMITTED BY JURISDICTIONS

1990	TONS DISPOSED	DISPOSAL RATE(%)	COMPOSITIO DISPOSAL(%)	TONS DIVERTED	DIVERSION RATE(%)	COMPOSITIO DIVERSION(%	TONS GENERATED
TOTAL	3,782,977	76.2	100.0	1,183,766	23.8	100.0	4,966,742
TOTAL PAPER	1,000,639	67.1	26.5	148,294	12.9	12.5	1,148,933
CARDBOARD & BAGS	347,380	79.6	9.2	89,068	20.4	7.5	436,448
MIXED PAPER	237,448	86.9	6.3	35,925	13.1	3.0	273,373
NEWSPAPER	179,805	89.7	4.8	20,741	10.3	1.8	200,546
HI-GRADE LEDGER PAPER	53,758	96.5	1.4	1,926	3.5	0.2	55,682
OTHER PAPER	182,249	99.7	4.8	634	0.3	0.1	182,884
TOTAL PLASTICS	226,065	97.7	6.0	5,246	2.3	0.4	231,311
HDPE CONTAINERS	35,722	97.3	0.9	999	2.7	0.1	36,721
PET CONTAINERS	8,045	80.1	0.2	1,994	19.9	0.2	10,040
FILM PLASTICS	48,311	100.0	1.3	1	0.0	0.0	48,312
OTHER PLASTICS	133,987	98.3	3.5	2,252	1.7	0.2	136,238
TOTAL GLASS	96,995	84.5	2.6	17,801	15.5	1.5	114,796
REFILL GLASS CONTAINERS	227	21.4	0.0	834	78.6	0.1	1,060
REDEMPTION VALUE GLASS	34,142	72.4	0.9	12,994	27.6	1.1	47,137
OTHER RECYCLABLE GLASS	55,809	93.7	1.5	3,722	6.3	0.3	59,532
OTHER NON-RECYCLABLE GLASS	6,817	96.5	0.2	250	3.5	0.0	7,067
TOTAL METALS	168,651	60.5	4.5	110,016	39.5	9.3	278,667
ALUMINUM CANS	7,870	38.6	0.2	12,502	61.4	1.1	20,372
BI-METAL CONTAINERS	2,283	99.2	0.1	19	0.8	0.0	2,302
FERROUS & TIN CANS	127,837	66.3	3.4	65,074	33.7	5.5	192,911
NON-FERROUS & AL SCRAP	12,624	37.4	0.3	21,138	62.6	1.8	33,762
WHITE GOODS	10,467	71.3	0.3	4,211	28.7	0.4	14,678
OTHER METALS	7,570	51.7	0.2	7,071	48.3	0.6	14,641
TOTAL YARD WASTE	662,007	95.8	17.5	28,810	4.2	2.4	690,817
YARD WASTE	662,007	95.8	17.5	28,810	4.2	2.4	690,817
TOTAL OTHER ORGANIC	976,144	69.0	25.8	437,629	31.0	37.0	1,413,772
FOOD WASTE	195,946	89.3	5.2	23,531	10.7	2.0	219,477
TIRES & RUBBER	33,585	97.6	0.9	822	2.4	0.1	34,407
WOOD WASTES	284,513	85.2	7.5	49,567	14.8	4.2	334,080
CROP RESIDUES	2,821	0.8	0.1	330,540	99.2	27.9	333,361
MANURE	313,069	91.8	8.3	28,541	8.4	2.4	341,610
TEXTILES & LEATHER	78,095	95.4	2.1	3,781	4.6	0.3	81,875
MISCELLANEOUS ORGANIC	22,505	98.1	0.6	436	1.9	0.0	22,940
DISPOSABLE DIAPERS	45,611	99.1	1.2	410	0.9	0.0	46,021
TOTAL OTHER WASTE	647,104	60.7	17.1	419,659	39.3	35.5	1,066,763
INERT SOLIDS	308,518	43.0	8.2	410,196	57.0	34.7	719,714
HOUSEHOLD HAZARDOUS & CONTAINERS	24,542	99.7	0.6	72	0.3	0.0	24,615
FURNITURE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
BULKY ITEMS	9,255	93.6	0.2	636	6.4	0.1	9,891
OTHER & UNSORTED WASTE	303,789	97.2	8.0	8,754	2.8	0.7	312,543
TOTAL SPECIAL WASTES	5,373	24.8	0.1	16,311	75.2	1.4	21,683
ASH	208	100.0	0.0	0	0.0	0.0	208
SEWAGE SLUDGE	2,645	14.0	0.1	16,200	86.0	1.4	18,845
INDUSTRIAL SLUDGE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
ASBESTOS	429	100.0	0.0	0	0.0	0.0	429
AUTO SHREDDER WASTE	0	0.0	0.0	111	100.0	0.0	111
AUTO BODIES	38	99.9	0.0	0	0.1	0.0	38
OTHER SPECIAL WASTE	2,052	100.0	0.1	0	0.0	0.0	2,052

POPULATION OF SAMPLED JURISDICTIONS = 2,740,651
TOTAL POPULATION OF REGION = 2,766,980
% OF REGION POPULATION = 99.4%
NUMBER OF SAMPLED JURISDICTIONS = 56
TOTAL NUMBER OF JURISDICTIONS IN REGION = 58
% OF REGION JURISDICTIONS = 96.6%

EXCLUDED WASTE TYPES

INERT SOLIDS (CONCRETE, ASPHALT, DIRT, ETC.)
SCRAP METAL (FERROUS, NON-FERROUS, AUTO BODIES, ETC.)
AGRICULTURAL WASTES (CROP RESIDUES, MANURE, ETC.)
WHITE GOODS (MAJOR APPLIANCES, WASHERS, DRYERS, ETC.)

REGION: San Diego

AVERAGE 1990 WASTE STREAM COMPOSITION OF SAMPLED REGION JURISDICTIONS

REVISED 2-Feb-95

INCLUDING DIVERSION OF EXCLUDED WASTE TYPES

BASED ON PRELIMINARY DRAFT SOURCE REDUCTION AND RECYCLING ELEMENTS SUBMITTED BY JURISDICTIONS

1990	TONS DISPOSED	DISPOSAL RATE(%)	COMPOSITIO DISPOSAL(%	TONS DIVERTED	DIVERSION RATE(%)	COMPOSITIO DIVERSION(%	TONS GENERATED
TOTAL	3,745,831	81.1	100.0	875,119	18.9	100.0	4,620,950
TOTAL PAPER	872,517	78.7	23.3	235,812	21.3	26.9	1,108,329
CARDBOARD & BAGS	382,793	84.8	10.2	68,507	15.2	7.8	451,299
MIXED PAPER	284,680	91.9	7.6	25,214	8.1	2.9	309,894
NEWSPAPER	162,947	59.7	4.4	109,847	40.3	12.6	272,794
HI-GRADE LEDGER PAPER	42,067	56.6	1.1	32,228	43.4	3.7	74,295
OTHER PAPER	30	65.2	0.0	16	34.8	0.0	46
TOTAL PLASTICS	194,308	98.1	5.2	3,702	1.9	0.4	198,010
HDPE CONTAINERS	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
PET CONTAINERS	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
FILM PLASTICS	91,843	99.9	2.5	91	0.1	0.0	91,934
OTHER PLASTICS	102,464	96.6	2.7	3,611	3.4	0.4	106,078
TOTAL GLASS	118,195	76.6	3.2	36,160	23.4	4.1	154,355
REFILL GLASS CONTAINERS	8,065	100.0	0.2	0	0.0	0.0	8,065
REDEMPTION VALUE GLASS	0	0.0	0.0	286	100.0	0.0	286
OTHER RECYCLABLE GLASS	9,839	56.1	0.3	7,706	43.9	0.9	17,545
OTHER NON-RECYCLABLE GLASS	100,291	78.1	2.7	28,168	21.9	3.2	128,459
TOTAL METALS	45,380	80.2	1.2	11,229	19.8	1.3	56,609
ALUMINUM CANS	10,881	52.8	0.3	9,741	47.2	1.1	20,622
BI-METAL CONTAINERS	1,458	92.8	0.0	113	7.2	0.0	1,571
FERROUS & TIN CANS	33,041	97.0	0.9	1,035	3.0	0.1	34,076
NON-FERROUS & AL SCRAP	0	0.0	0.0	2	100.0	0.0	2
WHITE GOODS	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
OTHER METALS	0	0.0	0.0	338	100.0	0.0	338
TOTAL YARD WASTE	491,604	87.1	13.1	72,691	12.9	8.3	564,295
YARD WASTE	491,604	87.1	13.1	72,691	12.9	8.3	564,295
TOTAL OTHER ORGANIC	541,198	96.4	14.4	25,988	4.6	3.0	567,186
FOOD WASTE	0	0.0	0.0	5	100.0	0.0	5
TIRES & RUBBER	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
WOOD WASTES	276,230	92.5	7.4	22,403	7.5	2.6	298,633
CROP RESIDUES	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
MANURE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
TEXTILES & LEATHER	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
MISCELLANEOUS ORGANIC	223,760	99.8	6.0	517	0.2	0.1	224,277
DISPOSABLE DIAPERS	41,208	93.1	1.1	3,063	6.9	0.4	44,271
TOTAL OTHER WASTE	1,477,783	75.6	39.5	476,411	24.4	54.4	1,954,194
INERT SOLIDS	516,204	52.4	13.8	468,640	47.6	53.6	984,844
HOUSEHOLD HAZARDOUS & CONTAINERS	13,824	99.6	0.4	58	0.4	0.0	13,882
FURNITURE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
BULKY ITEMS	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
OTHER & UNSORTED WASTE	947,756	99.2	25.2	7,713	0.8	0.9	955,468
TOTAL SPECIAL WASTES	4,848	27.0	0.1	13,126	73.0	1.5	17,972
ASH	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
SEWAGE SLUDGE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
INDUSTRIAL SLUDGE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
ASBESTOS	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
AUTO SHREDDER WASTE	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
AUTO BODIES	0	#DIV/0!	0.0	0	#DIV/0!	0.0	0
OTHER SPECIAL WASTE	4,848	27.0	0.1	13,126	73.0	1.5	17,972

POPULATION OF SAMPLED JURISDICTIONS = 2,498,016

TOTAL POPULATION OF REGION = 2,498,016

% OF REGION POPULATION = 100.0%

NUMBER OF SAMPLED JURISDICTIONS = 19

TOTAL NUMBER OF JURISDICTIONS IN REGION = 19

% OF REGION JURISDICTIONS = 100.0%

EXCLUDED WASTE TYPES

INERT SOLIDS (CONCRETE, ASPHALT, DIRT, ETC.)

SCRAP METAL (FERROUS, NON-FERROUS, AUTO BODIES, ETC.)

AGRICULTURAL WASTES (CROP RESIDUES, MANURE, ETC.)

WHITE GOODS (MAJOR APPLIANCES, WASHERS, DRYERS, ETC.)

360 Are the Western Waste transfer stations/MRFs all located on SP rail lines? How many new transfer stations/MRFs would be needed to link up WWI's "extensive collection system within Los Angeles" (DEIS 1-3) with SP rail lines in order to make the transfer from truck haul landfilling to rail haul landfilling? How will MSW residue be transported from transfer stations/MRFs, including the transfer station/MRF at the Puente Hills LF to the Los Angeles Transportation Center (LATC) in downtown Los Angeles (DEIS 4-77) or to SP's existing City of Industry intermodal facility (D#EIS S-5)? What are the potential truck haul routes which should be analyzed for both transportation, air quality, (DEIS 4-70, 4-72) and noise impacts along the routes? What are the potential criteria for siting, and construction and the potential impacts associated with future transfer Stations/MRFs that might be used for the proposed project?

ECONOMIC ISSUES RE PROPOSED PROJECT
Sec. 1.1.3.2 FUTURE MSW SOURCES:

361 DEIS is inadequate because it fails to discuss the economics of the proposed project for communities which might make the change from current waste collection and disposal practices to use of a regional mega landfill in Imperial County. The following questions need to be addressed.

What is the existing cost/household/month for solid waste disposal for communities of origin in the counties listed as potential future MSW sources? By how much would that cost increase or decline with rail haul of waste for disposal by SP route to proposed Mesquite LF and to proposed Eagle Mountain LF or by AT&SF to Amboy rather than use of LF sites currently in operation? What is the estimated cost/ton for each proposed rail haul system?

Please update Table 2-6 "Potential Remote Waste-by-Rail Landfill Sites" (DEIS 2-95) to include estimated costs and current status of each project and size, etc. with information from CIWMB's most recent information available. Cite source. Use of 1988 SCAG information when 7/18/92 CIWMB "Information Sheet on Rail Haul" is available renders Table 2-6 out-dated and inadequate.

What is the minimum amount of waste that must be received (imported into Imperial County) in order to pay for the costs of the project including the required mitigations? What would be the economic viability of the proposed project if applicant/owner cannot secure contracts for delivery of the minimum waste at the specified cost to communities of generation?

What would be the environmental impact and economic feasibility of the proposed project if no new transfer stations or MRFs can be sited in the near future and/or if other rail haul projects are approved, particularly if other rail haul projects offer lower transport costs?

What would be the economic impact and resulting economic feasibility of the proposed project if counties and cities seriously implemented source reduction, recycling, re-use and take

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 360

The transfer station/MRF operated by Western Waste Industries is not on the SP Main Line; however, it is not proposed that this facility would necessarily be the source of MSW residue the would be shipped to the proposed landfill. It is not expected that any new transfer stations/MRFs would be constructed specifically to serve this proposed project. Please see response to Comment No. 15.

It is currently anticipated that MSW residue would be trucked from transfer stations/MRFs to the City of Industry Intermodal or LATC. The potential truck haul routes are not analyzed in this EIS/EIR because these are existing permitted facilities that generate truck traffic. The Proposed Action would not be expected to exceed any permit restrictions on the number of trucks or any specific truck route associated with each facility. Nevertheless, the air quality analysis does consider the difference in miles of trucking, and associated air quality impacts in the South Coast Air Basin, between the Proposed Action and the existing condition. Because transfer station/MRFs are not part of the proposed project, the requested transfer station/MRF siting and construction criteria are not relevant to the impacts of the Proposed Action.

Response to Comment No. 361

This EIS/EIR adequately describes the socioeconomic impacts associated with the Proposed Action. The existing cost per household per month for waste disposal in the Los Angeles Basin and any increase in the cost that would be attributable to rail haul are not relevant to the environmental analysis of the proposed project required by NEPA and CEQA. The originating jurisdiction will consider the cost of waste disposal in deciding whether or not to contract with Arid Operations for waste disposal services, if the project is approved.

A discussion has been added to Section 2.4.1.1 of this Final EIS/EIR that incorporates data from the May 31, 1994 CIWMB *Status Report on Railhaul.* Cost data is not provided for the Southern California rail haul projects described in this report.

Page 2-78 of the Final EIS/EIR states that a maximum MSW disposal rate below 12,000 tons per day (Alternative II) would not justify the large capital expenditures required for initial project development. However, please note that this is a long-term maximum rate, initial rates could be substantially less.

Response to Comment No. 361 (Cont'd)

As described on page 1-3 of the Draft EIS/EIR, transfer stations with permitted capacities of 20,000 tons per day already exist in the Los Angeles Basin. This project would be feasible using existing transfer stations. Please see response to Comment No. 15 regarding environmental impacts of future transfer stations. Because cost would not be the only consideration, it is not known what effect a lower-cost rail haul regional landfill would have on the ability of the Applicant to secure contracts for MSW residue delivery.

If local jurisdictions are more successful in source reduction than required by AB 939, landfills would still be required, even at 70 percent diversion.

In the past, two agencies were responsible for solid waste disposal in San Diego County, the City of San Diego and the County of San Diego. The responsibility of the County of San Diego has been replaced by a joint powers authority comprised of the County and participating cities. At this time, it is unclear if the joint powers authority has adopted the County's position with regard to public ownership of landfills. Many cities in San Diego County are currently investigating the opportunity to dispose of MSW by truck haul to remote sites and two cities have announced that contracts have been signed. Given these recent events, it is speculative to assume that public ownership of landfills will be adopted by every originating jurisdiction in Southern California.

Approval of real estate actions by BLM and permits by local jurisdictions does not guarantee the opening of a Regional Landfill. Once permits are obtained, the various landfill owners will attempt to secure contracts for MSW disposal from originating jurisdictions. It is the ability to obtain contracts that will determine the economic feasibility of each of the proposed regional landfills. The Applicant has expressed confidence in its ability to successfully compete for MSW disposal contracts from originating jurisdictions because of the various attributes of the proposed site, including its natural protection of ground water resources, proximity to the SP Main Line, and remoteness of the site. The data to support the need for regional landfills is provided in Section 1.1.3 and 1.1.4 of this EIS/EIR. The proposed project and/or other regional landfills outside of the SOCAB are also needed to fulfill SCAQMD 1991 AQMP A-D-1 Out-of-Basin Transport of Biodegradable Solid Waste (Draft EIS/EIR page 4-105).

back programs, and composting of clean green wastes (such as Rhode Island's 70% waste diversion programs without incineration, Exhibit M) and if existing landfills continued to be used?

What would the impact and economic feasibility/viability of the proposed project if more Southern California counties took the position of San Diego County to retain public ownership of landfills and thereby to manage their own wastes to maximize waste reduction and recycling? (See Exhibit P.)

What would be the economic feasibility of the proposed project if the Eagle Mountain and Amboy mega landfills are approved and operational? What data or studies are available to justify the need for three regional mega landfills and the associated new landfill capacity, or 4 mega landfills if Chocolate Mountains LF in Imperial County is also approved?

362 What is meant by the term "overall per-capita waste generation" (DEIS 1-5)? How is this different from the "per-capita MSW disposal rate" (DEIS 1-5)?

363 Why doesn't Table 1-1 indicate the projected AB 939 MSW generation rates for years of landfill capacity remaining based on information received from other Southern California Counties and presented in text (DEIS 1-3 to 1-5)? Either Table 1-1 should be amended or another table prepared to reflect the influence of AB 939 mandated changes in MSW disposal in the future.

How did Los Angeles manage its "shortfall in MSW disposal capacity of 8,849 tpd in 1992" (DEIS 1-5)?

Sec. 1.1.4 PURPOSE AND NEED FOR PROPOSED ACTION/PROJECT OBJECTIVES
Sec. 1.1.4.4 BLM OBJECTIVES:

364 DEIS states an important BLM objective is to: "Ensure that all new waste disposal sites (landfills) are not located on BLM managed lands." (DEIS 1-7.) A review of the Executive Summary clearly indicated that the project proponents do indeed intend to use federal lands for the proposed landfill project. "Approximately 1,750 acres of the proposed landfill site are federally owned, managed by the BLM." (DEIS S-1.) Consistent with BLM's objective, Sierra Club San Diego Chapter opposes the transfer of BLM lands for the purpose of a landfill at the proposed site, particularly when Gold Fields Mesquite Mine has already acquired so much former federal lands in the vicinity. (Exhibit G.) Discussion in DEIS Section 1.3 attempting to justify criteria for BLM exchange of lands for an asserted "beneficial public" use at the proposed site is not convincing. Another alternative which should be comprehensively examined then, is the filling of the mine pits.

365 Why is a stated BLM objective related to the proposed project (in Imperial County desert tortoise habitat) to obtain through exchange and protect lands in the Santa Rosa Mountains in Riverside County and in the Chuckwalla Bench (not necessarily in the Chuckwalla Bench ACEC) "that are capable of providing high quality habitat for sensitive species" (DEIS 1-7)? This appears inconsis-

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 362

Overall per capita waste generation rate equals per capita MSW disposal rate plus per capita waste diversion rate.

Response to Comment No. 363

Table 1-1 provides the most consistent set of data that was available from the CIWMB and MSW originating jurisdictions at the time the Draft EIS/EIR was released for public review. The additional information provided in Section 1.1.3.2 updated the information presented in Table 1-1, but was not a consistent set of data. Therefore, it was not summarized into tabular form (summarizing inconsistent data into tabular form can result in inappropriate comparisons between the data presented). The waste disposal capacity shortage projected for 1992 did not occur because the waste stream going to landfills did not meet earlier projections. The downturn in the economy that began in 1992 and the successful implementation of waste reduction and diversion programs averted the 1992 shortfall.

Response to Comment No. 364

FLPMA allows for a publicly benefiting exchange of lands for the construction and operation of landfills. The commentor's not being convinced that the proposed land exchange is publicly beneficial is noted. Section 2.4.2 of this EIS/EIR described why a "Filling the Mine Pits" alternative was dropped from further consideration.

Response to Comment No. 365

The exchange parcels include both designated Critical Habitat for the desert tortoise and lands in the SRMNSA. The compensation lands are all within designated Critical Habitat for the desert tortoise and within the Chuckwalla Bench ACEC. BLM would receive over 5,575 acres of designated Critical Habitat for the desert tortoise in and near the Chuckwalla Bench ACEC if the proposed project is approved. All of these lands have been identified for acquisition by BLM's land use planning process.

tent with the purposes and policies of CDCA Plan and needs for management of desert tortoise habitat. BLM's objective makes no reference to loss of federal lands which are desert tortoise habitat or BLM's adopted management plans and policies for acquisition of private inholdings within ACECs which are managed for important wildlife habitat.

366 Why should BLM be considering exchange of federal lands for a private mega landfill adjacent to and overlying portions of the existing Mesquite Mine when mine lands, including already disturbed lands could be used for the project without creating such massive impacts on federal lands? See Alternative I "Smaller Landfill Footprint" which would involve "2240 acres of land located almost entirely on property already owned by Gold Fields" and would involve only 135 acres of federal land (DEIS S-9) rather than the 1750 acres of federal lands for use in the "Proposed project" (S-1)? What are the specific reasons that "BLM's Preferred Alternative is the Proposed Action" (proposed project) over the Alternative I (Smaller LF footprint) or over the No Action Alternative (DEIS 2-76)? The reasoning for this public policy decision should be clearly defined in the text of the DEIS so the public can understand the management decisions of public employees related to use of public lands. Who specifically made this determination and when and why? Was this decision made before or after the appointment of Bruce Babbitt as Secretary of Interior? If before Babbitt's appointment, has the Secretary concurred that creating mega landfills on public lands is preferable to having such a project on adjacent mine lands where impacts to sensitive wildlife and public lands are significantly minimized?

Sec. 1.1.4.1 APPLICANT'S OBJECTIVES:

367 How does sale of the Mesquite Mine by Gold Fields (a partner in the proposed project) alter the applicant's stated objectives for use of the site and reuse of the mining overburden at the Mesquite Mine (DEIS 1-6)? Who does what and who has use of what resources at the Mesquite Mine site? What is the nature of any contractual agreements between the project partners and the new owner/operator of the Mesquite Mine that would affect the proposed project? Who is the owner of the wells at Gold Fields well field now that the mine has been sold?

Sec. 1.1.4.2 IMPERIAL COUNTY OBJECTIVES

368 Where is the information that could support any determination as to whether the proposed project is economically sound and sustainable or not? Why wouldn't most of Imperial County's objectives be better met by Alternative I than the proposed project? Alternative I would allow continued employment, reuse disturbed sites, provide employment and offset economic losses from closure of Mesquite Mine (DEIS 1-6). Why wouldn't the No Action Alternative also be adequate?

In Imperial County the "existing permitted landfills provide 35+ years of remaining landfill capacity at present yearly disposal rates and 52+ years of remaining landfill capacity assuming the successful implementation of AB 939." (DEIS 1-5.) Additionally,

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 366

BLM has considered the effects on the human environment of the Proposed Action and Alternatives to the Proposed Action and has determined that BLM's Preferred Action is the Proposed Action. The Proposed Action is the Preferred Alternative for the following reasons:

The proposed landfill design would meet or exceed federal requirements.

BLM is attempting to consolidate federal land holdings of critical desert tortoise habitat in the vicinity of the Chuckwalla Bench ACEC to protect the threatened desert tortoise. BLM is also attempting to consolidate federal land holdings in the SRMNSA to preserve these scenic resources for future generations. BLM would receive approximately 5,900 acres in these two areas as compensation for lost habitat on-site and in exchange for the federal lands on-site. The Applicant has also agreed to implement a desert tortoise monitoring program along the proposed rail spur and a raven control plan, including population monitoring. Please see response to Comment No. 337.

Visual impacts would be significant regardless of which project alternative is chosen. Under the No Action Alternative the proposed site would be visually impacted by the Mesquite Mine and associated overburden and leached-ore piles.

Implementation of the No Action Alternative would not achieve the objectives described in Chapter 1.0 of this EIS/EIR, including BLM's objective to preserve, through the exchange process, land in the SRMNSA and near the Chuckwalla Bench ACEC. The No Action Alternative would not implement SCAQMD AQMP Measure A-D-1, Out-of-Basin Transport of Biodegradable Waste. The No Action Alternative would avoid the cumulatively significant PM_{10} impacts described in Section 4.7 of this EIS/EIR.

Alternative I would impact seven fewer significant cultural resources than the Proposed Action. However, the important information contained in these resources can be salvaged and would be made available to the public. Adoption of Alternative I would result in a significantly smaller land exchange and habitat compensation. Therefore, Alternative I is not preferred.

Response to Comment No. 366 (Cont'd)

Alternative II would result in lesser MSW residue train and highway vehicle impacts to campers who use the ISDRA and the Algodones Dunes ACEC. However, if a landfill is to be built at the proposed site, these reduced impacts would not offset the reduced socioeconomic benefits that would accrue to Imperial County under Alternative II (employment, earnings, and revenues). Therefore, Alternative II is not preferred.

The proposed site provides natural protection to valuable ground water resources that would be supplemented by the proposed liner system, leachate recovery system, landfill gas collection system, and monitoring systems. Alternative III would be sited directly over the Amos-Ogilby Basin and would not provide the same level of natural ground water protection. Also, the alternative site is closer to the ISDRA and is currently undeveloped. Use of this site would increase habitat fragmentation more than the Proposed Action. Therefore, Alternative III is not preferred.

Alternative IV would require 1.5 times as many train and highway vehicle trips per day as the Preferred Alternative. While this would not be a significant environmental effect, it would increase impacts to campers who use the ISDRA and Algodones Dunes ACEC. Also, the Applicant has indicated that 30,000 tons per day of MSW residue likely would not be available for rail haul in the near future. Therefore, this alternative is not preferred.

Response to Comment No. 367

The sale of the Mesquite Mine does not affect the proposed project described in this EIS/EIR. Please see response to Comment No. 63.

Response to Comment No. 368

The project's economic soundness and sustainability will depend on the ability to obtain contracts with MSW-residue originating jurisdictions. It is not the BLM's or County's responsibility to determine the economic viability of a proposal, but the Applicant feels that the project is economically sound and that it will be sustainable. The County would be protected from economic impacts should the landfill project close prematurely by the financial assurances that are described in Section 2.1.18. Alternative I would meet the County's objectives; however, to a

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 368 (Cont'd)

lesser degree than the proposed project because the quantity of MSW residue to be landfilled would be reduced by one-third.

The No Action Alternative would not meet the County's objective for the following reasons: it would not create the project-related jobs or revenue described in this EIS/EIR, the already-disturbed portion of the proposed site would not be reused for the proposed project, a site capable of receiving Imperial County MSW residue would not be provided at the proposed site, and the economic loss from the closure of the Mesquite Mine would not be offset.

The County's present landfills have each been issued a Stipulated Order of Compliance for being in violation of existing regulations. The proposed landfill would provide the county the option of closing some or all of these landfills and disposing of Imperial County MSW residue at a site that meets or exceeds existing regulations.

the County would have "approximately 120 million tons of additional landfill space" (DEIS 1-5) exclusive of the proposed project if permits are approved. Therefore, the purported County objective to "permit construction and operation of a site capable of receiving MSW residue from Imperial County" (DEIS 1-6) appears ludicrous and unrelated to any reasonably foreseeable need for decades to come. Where is the logic in meeting an already met need?

Sec. 1.1.4.3 STATE AND REGIONAL AGENCIES' OBJECTIVES

369 How would the proposed project in any way serve to: "Meet reduction and recycling goals as set forth in AB 939. (SCAG, 1988.)"? (DEIS 1-7.) DEIS provides inadequate information about recycling, reuse, source reduction programs in generating and the locations and operations of the transfer stations/MRFs to indicate any relationship between the proposed project and the objective to meet waste reduction and recycling goals of AB 939. Either the scope and content of the DEIS and its project description must be greatly expanded or DEIS must eliminate reference to this objective and any asserted relation of the proposed project in accomplishing AB 939's purposes for waste reduction.

It is too late to develop a mega landfill site in Southern California which can receive Los Angeles waste by 1994 (DEIS 1-5). Why should Los Angeles planning needs drive development of Imperial County's waste management plans?

Sec. 1.2.2.1 RELATIONSHIP TO EXISTING MESQUITE MINE FACILITIES:

370 Is one of the main purposes of proposing a regional landfill project to use the overburden and/or heap leach/ore residue piles (DEIS 1-8, 10) generated by past, present, and future mining operations at the Mesquite Mine (DEIS 1-6) to avoid the necessity of mine reclamation and revegetation? DEIS appears to answer this question when it states that: "All of the ore residue and the majority of overburden material could be eliminated as they are used for daily, intermediate, and final landfill cover." (DEIS 2-20.) Have there been any attempts to revegetate the already existing piles? How successful have such efforts been before and after supplemental irrigation was stopped? Who was involved? If efforts have ceased, please explain why.

Sec. 1.2.2.2 SALEABLE MINERAL MATERIALS

Text and Fig 1-3 identify 1 Section (640 acres) of the proposed project site as including BLM managed as a sand and gravel withdrawn area used by permittees and contractors and the California Dept of Transportation. (DEIS 1-10.) "All saleable mineral materials within the project area" would be used for LF project construction (DEIS 1-10) and "operation of the landfill and related facilities" (DEIS 4-2). "Historically, about 500,000 to 700,000 tons of aggregates per year were produced from this region for

371 various purposes." (DEIS 3-11.) What price has been agreed on for these materials?

372 If these gravel resources are used for the proposed project and not available for other historic uses, from what other sources

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 369

The proposed project would serve to meet the source reduction and recycling goals set forth in AB 939 by only accepting MSW residue from communities that can demonstrate that their reduction and recycling activities are in accordance with AB 939 requirements or are subject to an exemption from the CIWMB (Draft EIS/EIR page 2-56). It is anticipated that communities would construct transfer stations/MRFs to meet these goals. The proposed landfill would provide a location for the environmentally safe landfilling of the MSW residue that would be the product of the sorting and recycling process. The point of the second objective under State and Other Regional Agencies' Objectives is that Los Angeles predicted a landfill capacity shortage in 1994 (according to a letter from the Los Angeles Department of Public Works) and the objective is to meet that need as soon as possible. The proposed Mesquite Regional Landfill would not "drive" Imperial County's waste management plans. Although the proposed Mesquite Regional Landfill would be available for use by Imperial County, there is no requirement that Imperial County use the proposed landfill.

Response to Comment No. 370

The Mesquite Mine has an approved reclamation plan for the entire mine site including the overburden piles and heap leach piles, although comprehensive revegetation is not a part of the approved plan. Should the mine close prior to commencement of landfilling operations, the mine would be obligated to reclaim the entire mine site according to the approved plan. However, landfill operations are expected to begin before the mine has closed, and the overburden and other materials consumed by the landfill prior to reclamation would obviously not be subject to reclamation. The area from which material has been removed post-mine reclamation would become the responsibility of the proposed project. Revegetation of the overburden piles is not relevant to the proposed project.

Response to Comment No. 371

The value of the aggregate materials was considered in the appraised value of the BLM lands on-site. The "Mineral Potential and Mineral Appraisal of 1877.7 Acres of Lands Selected for Exchange by Arid Operations, Inc. In Portions of Sections 8, 15, 17, 18, 19, 20, 21, and 22, T.13S., R.19E., S.B.M., Southeastern Imperial County, California (CACA

Response to Comment No. 371 (Cont'd)

30689)" reports the appraised value of the aggregate and sand resources to be Two Hundred Sixty Nine Thousand Dollars ($269,000.00).

Response to Comment No. 372

As shown on Figure 1-3, only a small portion of the public domain gravel withdrawn lands would be impacted by the proposed landfill and railroad spur. BLM would be compensated for these materials. It is not expected that the loss of these lands would result in new gravel-mining disturbance elsewhere because the lands that would be impacted do not contain large volumes of gravel (Figure 3-5), and compared to past gravel mining in the area, substantial gravel resources would still exist in the gravel withdrawn area. Therefore, the environmental impacts of future gravel withdrawal operations would not change with the implementation of the Proposed Action. Because impacts would not be significant, no specific discussion was provided in the Draft EIS/EIR. The issue of how specified users with long term contracts or material site right-of-way would be compensated would be according to the legal documents that established the contract or rights-of-way. It is currently expected that the gravel encountered during construction of the landfill and rail spur would be used for landfill and rail spur construction. At least three railroad crossings would be provided that would allow access to gravel withdrawn areas north of the proposed rail spur. All BLM contracts for mineral extraction are available for examination by the public.

would sand and gravel be taken by those currently obtaining materials from this site? What other possibly undisturbed areas would be destroyed for replacement sand and gravel uses? What are the potential environmental impacts at other sites? Why doesn't the DEIS discuss the loss of such a substantial sand and gravel resource for other projects? How would the "specified users" with "long term contracts or material site rights-of-way" (DEIS 1-14) be compensated for the loss of the gravel resources on-site if the proposed project uses all such saleable resources? "To avoid this loss of this resource" would "pockets of surficial gravel encountered during rail spur or landfill facilities construction" be "stockpiled at convenient locations for convenient removal by others" as indicated in Appendix A NOP p.4-5? If so, where? If not, why not? Are these "long-term contracts" available for examination by the public?

373 Rail facilities: Where specifically do the SP Main Line, SP's West Coast, Southern and Midwestern rail systems (DEIS 1-10) go and through which major urban areas does it pass?

Sec. 1.4.4 IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS/IMPERIAL COUNTY INTEGRATED WASTE MANAGEMENT PLAN

It seems most inappropriate to attempt to impose the proposed Mesquite Regional LF, and export plans of other counties and/or states on Imperial County in its preparation of the County Integrated Waste Management Plan (CIWMP) as described in DEIS 1-15. DEIS text specifies that in accordance of the wishes of the project proponents, that County of Imperial should/must develop a CIWMP which would/should hereafter accommodate the plans of any agency -- other counties or states -- to export its waste problems to
374 Imperial County. The result of other counties being able to export their waste problems to Imperial County would be that the other counties or communities can use their more valuable land and resources for more attractive and aesthetically less objectionable purposes including commercial, residential, and recreational purposes. What benefits and losses would accrue to Imperial County under this arrangement?

375 Another result of increased growth and development in MSW exporting counties would be the accompanying need for increased water resources to support the development in MSW exporting counties. Isn't it true that Imperial Irrigation District (IID) presently has the greatest California entitlement for Colorado River water? If Metropolitan Water District (MWD) has already entered into negotiations and contract with IID, why shouldn't Imperial County residents and Imperial Valley farmers be concerned about DEIS proposals which encourage export of waste from, and increased growth in other water short counties in Southern California?

376 What happens if the County of Imperial Department of Public Works determines that the proposed Mesquite Regional Landfill is <u>not</u> an appropriate component of its CIWMP? This alternative is suggested by text discussion of Alternatives which notes the proposed facility could accept Imperial County MSW residue "<u>if</u>

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

<u>Response to Comment No. 373</u>

The SP Main Line connects with the national rail network that connects all parts of the continental United States.

<u>Response to Comment No. 374</u>

Imperial County is currently in the process of preparing its County-wide Integrated Waste Management Plan ("ColWMP"). The County anticipates submitting its ColWMP to the California Integrated Waste Management Board ("CIWMB") on or before January 1996.

The ColWMP will include a "siting element." (Pub. Resources Code, § 41700-41721.5.) The siting element will "provide a description of the areas to be used for development of adequate transformation or disposal capacity" within the County. (Pub. Resources Code, § 41700.) It is anticipated that the siting element will include the Mesquite Regional Landfill. The Mesquite Regional Landfill is thus expected to be consistent with the ColWMP. (Personal communication, John Armas, Imperial County Department of Public Works, January 10, 1995.)

The comment suggests that Imperial County should not approve the Mesquite Regional Landfill unless and until the CIWMB approves the County's ColWMP. Because the CIWMB has not approved Imperial County's ColWMP, approval of new landfills is governed by the so-called "Gap Bill," now embodied in Public Resources Code § 50000 through 50002. The Gap Bill establishes a detailed process for consideration of landfill facilities before the ColWMP is approved. Under this process, no person can establish a new solid waste facility unless the Local Enforcement Agency (here, the Imperial County Department of Health Services) certifies that one of the following has occurred:

> (1) the facility is identified and described in or found to conform with a county solid waste management plan ("CoSWMP") that was in compliance with the law and regulations existing on December 31, 1989;
>
> (2) the facility is identified and described in the most recent CoSWMP approved by the county and by a majority of the cities within the county which contain a majority of the populations of the incorporated area of the county; or

Response to Comment No. 374 (Cont'd)

> (3) the facility has been approved by the county and by a majority of the cities within the county that contain a majority of the population of the incorporated area of the county; such approval must be made pursuant to the provisions of subdivision (b) of section 50000 (described below).
>
> (Pub. Resources Code, § 50000, subd. (a).)

The process described in subdivision (b) of section 50000, as referenced in potential finding (3) above, provides that, where an agency proposes a "facility" not contemplated in the most recent CoSWMP, such a project cannot go forward without concurrence of "the county and.. a majority of the cities within the county which contain a majority of the population of the incorporated area of the county." (Pub. Resources Code, § 50000, subd. (a)(3).)

In the case of the proposed project, the applicant would initiate the process by submitting a "site identification and description" to the Imperial County Board of Supervisors. (Pub. Resources Code, § 50000, subd. (b)(1).) The County would then, within 20 days, have to send that document to all cities within the County. The Board and City Councils would then have 90 days to "approve or disapprove" (by resolution) the site identification and description. Failure to take such action within the appointed time would constitute implicit approval. (Pub. Resources Code, § 50000, subd. (b)(2).) No city or county can disapprove the document unless substantial evidence shows that the proposed facility or expansion will cause "one or more significant effects within its boundaries." (Pub. Resources Code, § 50000, subd. (b)(4); see also Draft EIS/EIR, p. 1-18 (summarizing "Gap Bill" process).)

Imperial County's current CoSWMP, adopted in October 1984, does not refer to the Mesquite Regional Landfill. As a result, in order to issue a facilities permit for the Mesquite Regional Landfill, the County Department of Health Services must certify finding (3). This, in turn, requires that the applicant initiate the approval process outlined in Public Resources Code section 50000, subdivision (b). Assuming the CIWMB does not approve Imperial County's CoIWMP in the interim, the applicant intends to initiate this process.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 374 (Cont'd)

The Gap Bill contains a further requirement. Even where the LEA concludes that a proposed project is consistent with the most recent CoSWMP, or even where such a project must be approved through the process set forth in section 50000, subdivision (b), Public Resources Code section 50000.5 provides that, until the CIWMB approves a county's CoIWMP, no landfill can be approved "unless the city or county in which the site is located makes a finding that the establishment or expansion of the facility is consistent with the applicable general plan of the city or county." (Pub. Resources Code, § 50000.5, subd. (a).) Moreover,

> " Any new or expanded solid waste disposal facility.. shall be deemed to be consistent with the general plan only if both of the following requirements are met:
>
> " (1) The facility is located in a land use area designated or authorized for solid waste facilities in the applicable city or county general plan.
>
> " (2) The land uses which are authorized adjacent to, or near, the facility are compatible with the establishment, or expansion of, the solid waste disposal facility.."
>
> (Pub. Resources Code, § 51000.5, subd. (b).)

First, the Imperial County General Plan designation for the site is "Recreation." (Imperial County General Plan, Land Use Element (1993).) The Mesquite Regional Landfill is not consistent with this land use designation. (Draft EIS/EIR, p. 4-118.) The applicant has requested that the County revise the land-use designation for the site to "Special Purpose Facility." This land-use designation allows solid waste facilities. If the General Plan amendment is approved, the project will be consistent with the General Plan.

Second, as set forth in the Draft EIS/EIR, the MRL is consistent with authorized land uses adjacent to, or near, the MRL. (Draft EIS/EIR, pp. 4-118 - 4-123.)

The commentor asks what beneficial and adverse impacts will result from accepting solid waste from jurisdictions outside of Imperial County. The Draft EIS/EIR and Final EIS/EIR are devoted to this very issue. Whether

Response to Comment No. 374 (Cont'd)

the benefits associated with the project outweigh its impacts is left to the discretion of County decision-makers. These benefits are detailed in the Statement of Overriding Considerations.

Response to Comment No. 375

In essence, this comment states that the proposed project would have growth inducing effects, and that the Draft EIS/EIR should examine impacts associated with resulting growth, including increased demand for limited water supplies. For a discussion of the project's potential growth-inducing effects, please see response to Comment No. 35.

Response to Comment No. 376

Please see response to Comment No. 374. The proposed project would require a facility permit from the Imperial County Department of Health Services (Public Resources Code § 44002). To obtain a facility permit, the proposed project must either complete the "Gap Bill" process described above (if the County's ColWMP has not been approved), or be consistent with the County's ColWMP, including its siting element (if the County's ColWMP has been approved). The proposed landfill could obtain a facility permit even if the County and cities in Imperial County choose not to dispose of their MSW residue in the proposed landfill.

local residents and agencies decide to include the regional landfill as part of their MSW disposal plans." (DEIS 2-1.)

CHAPTER 2.
Sec. 2.1.4 LANDFILL OPERATIONS

377 DEIS is inadequate because text is vague and fails to answer reasonable questions about operations at proposed LF site. Many questions are based on problems experienced at other LFs.

Sec. 2.1.4.1 LANDFILL SEGMENT DEVELOPMENT

378 How many landfill segments or cells are proposed for the project site? DEIS Fig. 2-9 makes it appear that there would be 43 cells. What is the proposed sequence of cell construction and filling? How does compaction affect leachate and landfill gas generation? How does compaction effect the release of liquids in containers?

379 **Landfill closure cover maintenance:** DEIS states that "Formal closure of the proposed landfill would not occur until every segment was completed and the entire landfill was covered by one continuous layered soil/FML [flexible membrane liner] system" (DEIS 2-12, 2-20) some 100 years into the future. How frequently would FMLs be tested for their integrity and/or replaced? Will FML covers be replaced on a specified periodic basis even if they haven't deteriorated yet? Who would bear the costs of such maintenance, and how is it possible to estimate the costs of such maintenance?

380 **Plastics performance - warranties:** From what companies are each of the liners and components of the leachate recovery system to be purchased? What is the length of the manufacturer's warranty for each of the FML and component of the leachate protection system? What are the manufacturer's instructions/specifications for repair to defective materials in the FMLs and leachate protection system? In the event of a leachate leak or liner defect, how would the leak be located? Could "dump divers" descend the 450 to 475 feet and make repairs to the leaking liner? What techniques would be used to remove enough compacted trash to make such repairs? Who does the repairs and what is the length of warranty on repairs? Are there any qualifying or pro-rated conditions on those warranties?

381 **Timing of LF operations - MSW Residue Placement:** What is the anticipated time elapsed (a) between emptying of MSW residue at the landfill working face and spreading; (b) between spreading and compaction; and (c) between compaction and covering with ore residue or overburden materials as indicated in DEIS 2-20? If it is only once "every 24 hours" as suggested by DEIS 2-25, what documentation is there to suggest that this would be adequate as a deterrent to ravens? How would wind blowing of litter, especially fugitive plastics, be prevented, especially during periods of high winds?

How do Figures 2-12 and 1-13 indicate any efforts that would minimize attraction to birds and vectors, minimize odors, windblown

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 377

This EIS/EIR provides enough details about the proposed project to allow for the analysis of the environmental impacts, a determination of the significance of those impacts, and the identification of mitigation measures required to mitigate significant environmental effects.

Response to Comment No. 378

Draft EIS/EIR Figure 2-9 is accurate in that it shows the landfill divided into the proposed 43 segments for purposes of construction sequencing and environmental monitoring and controls. Figure 2-10 shows a proposed sequence for development of the initial few segments. Generally, landfill construction would begin in the southwesternmost segment and expand roughly from southwest to the north and to the east. Landfilling would be completed along the eastern boundary of the proposed landfill footprint in approximately 100 years.

Compaction would decrease the field capacity of MSW residue slightly, though not enough to have a significant impact on leachate generation. As described in response to Comment No. 110, studies have been performed that indicate that leachate generation is not likely for this landfill based on low moisture content of incoming MSW residue, high evaporation rates in the area, and low potential for rainfall infiltration. Compaction would also have only a nominal effect on LFG generation. Substantially all liquid containers would be removed at transfer stations/MRFs before the MSW residue was shipped to the proposed landfill. Even if some liquid containers remained in the MSW residue and were ruptured by compaction or other processes, the liquid field capacity of the MSW residue would be such that the released liquid would be effectively absorbed into the MSW residue.

Please see response to Comment No. 328.

Response to Comment No. 379

Formal closure of the proposed landfill would occur in compliance with all applicable rules, regulations, and ordinances. After placement of final cover on closed areas of the landfill, routine maintenance inspections would be performed on a quarterly basis and after major rain events. The inspections would be performed to assure final cover integrity and proper

Response to Comment No. 379 (Cont'd)

operation of landfill drainage structures. These activities would continue throughout landfill operation for the closed areas. They would also be performed during the post-closure period after formal closure of the site. Cover maintenance activities and costs would be borne by the landfill operator. The FML portion of the proposed landfill cover is not expected to be replaced. The MMRP will specify the agency responsible for oversight of the Applicant maintenance activities.

Response to Comment No. 380

Please see response to Comment No. 110 for discussion on liner integrity and longevity.

In the event of a release of LFG or leachate from the landfill, tests performed with the vadose monitoring wells and vadose leachate monitoring layer would be used to systematically isolate the area of the release. Potential response strategies are described in Draft EIS/EIR Section 2.1.7.3.

Response strategies would be implemented under supervision of the RWQCB, the CIWMB, and the LEA in Imperial County in accordance with state regulations. In addition, payment for these activities would be guaranteed through financial assurances required by law. The law requires that an estimate of the cost for remediation in the event of a release be provided; the estimate is used to establish a financial mechanism (e.g., fund, letter of credit, etc.) that can be drawn upon to fund response activities in the event of a release.

It is not anticipated that excavation of the MSW residue would be necessary to remediate any release of LFG or leachate from the bottom of the proposed landfill. It is expected that the environmental controls and the redundancy incorporated into the proposed landfill design would preclude the necessity of excavating the MSW residue at the proposed landfill.

Response to Comment No. 381

Placement and compaction of MSW residue at one of, potentially, up to five active working faces would occur during normal operating hours each day at the landfill. Daily cover would be placed over the compacted waste at least once every 24 hours in accordance with state and federal regulations. Covering of MSW residue would be a deterrent to vectors, including ravens, by limiting access to the wastes. Monitoring of raven activity would occur throughout the life of the landfill or until the appropriate managing agency (e.g., BLM) decides it is no longer necessary. Section 4.1.3 of this EIS/EIR describes the proposed raven monitoring plan and potential response activities in the event that additional deterrence of ravens is required.

No salvaging of paper or other MSW residue would take place at the landfill. The removal of paper through source reduction and recycling programs within the originating jurisdictions would mean less paper in the waste delivered to the landfill. During periods of high winds, the potential for blowing materials would be reduced by the following mitigation measures that are incorporated into project design (see EIS/EIR Section 4.1.12.3):

- . On high-wind days, the operation of the landfill shall be restricted to special locations protected from wind by higher portions of the landfill.
- Moveable fencing shall be provided when necessary to prevent excessive blowing of trash.
- On high-wind days, the time between waste placement and daily cover placement shall be minimized so that MSW residue would be exposed to wind for shorter periods of time (i.e., during periods of high wind, soil cover shall be applied more often than every 24 hours to control litter). (This is a project design feature that has been added to the Environmental Health and Safety mitigation measures in this Final EIS/EIR.)

Response to Comment No. 381 (Cont'd)

- The Applicant shall conduct daily cleanup of landfill-related litter, both on- and off-site. (This is a project design feature that has been added to the Environmental Health and Safety mitigation measures in this Final EIS/EIR.)

The timing of actual MSW residue working face operations would be developed as part of detailed design activities. This information is not required to assess the potential environmental impacts of the proposed project.

Figures 2-12 and 2-13 show daily cover, small working faces, litter fences, and MSW residue compaction. These features would all work in concept to minimize attraction to birds and vectors and to minimize odors, windblown debris, and water infiltration.

debris and water infiltration as asserted by DEIS 2-20? Nothing in the figures or text indicate time intervals between various proposed MSW residue placement and cover actions. Why has discussion of these very important operations been omitted?

382 Alternative Cover: Who are the manufacturers and what are the physical and chemical characteristics and composition of the unidentified "foams or synthetic materials that are presently undergoing testing for this purpose" (DEIS 2-25) for use as alternative cover materials? What laboratories are conducting the testing and what are conditions and locations of field testing? Why does the DEIS state that "future environmental analysis may be required before alternative cover materials could be used" (DEIS 2-25), rather than indicating that such environmental analysis is mandatory? What specific "foams or synthetic materials" are being tested? Why was the DEIS released before this information was available for inclusion and public review; alternatively the DEIS is inadequate because full disclosure is not provided.

Is the use of sewage sludge, incinerator ash or contaminated soil intended as alternative cover? If so, where is the environmental discussion and why aren't all such proposed alternative cover materials revealed so the public can comment?

383 Bird controls: At what other landfills have "monofilament lines mounted on telescoping poles or pyrotechnics" (DEIS 2-25) been used for raven or gull control? If monofilament line is to be used, how would it be installed and at what spacing? What studies document the use of these techniques? How effective have such techniques been at other LF locations? Why isn't this information included in the text of the DEIS or biological Resources Appendix D? We have observed the ineffectiveness of monofilament lines in deterring birds from entering an open air restaurant patio area open only to the sky. Birds apparently had no difficulty in learning to pass between monofilament lines spaced 18 to 24 inches apart in a checkerboard grid pattern. Additionally, most birds soon learn that inflatable plastic owls are nothing to fear.

384 Wind blown debris: Will LF operations cease during periods of high winds when blowing debris cannot be contained at the site or by fences? Why is there no detailed information of positioning and height of the proposed fences? Failure to provide detail renders the text inadequate and denies the public an opportunity on the potential effectiveness or lack of effectiveness of such fencing. What is the wind speed below which light weight plastics will not blow around?

What precautions will be taken to prevent pick up and transport of debris by the "dust devils" which occur with great frequency, particularly during the summer months, in Imperial County? In mid May 1994, winds and dust devils twisted and broke limbs on mature mesquite trees, twisted and snapped off creosote bush limbs at ground level, and knocked down fencing on 2x6 posts. In past years high winds have broken off a row of telephone poles at 3 to 6 feet above the ground. It is not uncommon to see plastic

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 382

The use of alternative cover is not proposed by the Applicant or required by any permitting agency. EIS/EIRs are information documents. This EIS/EIR discloses to the public and decision makers that alternative cover may be used in the future, subject to appropriate future environmental analysis. Future environmental analysis may be required specifically because there is not enough information currently available to determine the impacts of any future use of alternative cover materials. This EIS/EIR is adequate because the use of alternative cover is not proposed and is speculative. Analysis of the environmental impacts of alternative cover is not required at this time.

It is not proposed that sewer sludge, incinerator ash, or contaminated soils would be used for cover at the proposed landfill.

Response to Comment No. 383

The use of monofilament line for bird control is not proposed by the Applicant or required by any permitting agency. EIS/EIRs are information documents. This EIS/EIR discloses to the public and decision makers that alternative bird control measures may be used in the future. Monofilament lines are one measure that may be used in the future. Please see response to Comment No. 339

Response to Comment No. 384

Landfill operations would not be required to cease during periods of high winds; however, Arid Operations could temporarily cease landfill operations at its discretion. The fact that MSW residue would be compacted into containers prior to shipment would reduce much of the litter problems that can be experienced at landfills. Compaction along with the other measures described in this EIS/EIR and in response to Comment No. 381 would reduce impacts to insignificance. The details of the height and placement of the litter control fences would be worked out by the Applicant and reviewed by the County of Imperial during landfill operations. Allowing substantial amounts of litter to escape the site would be a violation of the landfill CUP. Failure to clean up escaped litter would also be a violation of the CUP. Violation of the CUP would result in punitive actions against the Applicant. It is not expected that litter would escape the facility and not be picked up by landfill staff. Therefore, this would not be a significant environmental effect.

Response to Comment No. 384 (Cont'd)

Litter from the proposed landfill would be one of the items reviewed during period site inspections by County staff. The results of these inspections would be recorded on mitigation monitoring reports that would be available for public review. Therefore, the public would have the opportunity to determine if litter control measures are effective. Litter blown off-site at night would be picked up the following day or as required by the CUP.

bags spinning high in the air above buildings and trees in Mexicali as dust devils pass through the city. Will MSW residue deposition activities be stopped on days when travel advisories warning of high winds throughout low parts of the County are issued by the Weather Service to avoid generation of windblown debris? If operations continue 24 hours/day, how will dispersal of lightweight plastics by wind be prevented? Who can tell where liter is blown off-site at night?

Sec. 2.1.4.2 SURFACE WATER DRAINAGE CONTROL:

385 Figures 2-15 and 2-16 depict man-made drainage channels with a number of what appear to be 90 degree bends around and on top of the completed covered LF site. How would such sharply curved channels, particularly on steep landfill final cover faces function during 100 year storm events? What is the diameter and depth of such channels? Of what materials are such channels constructed? What monitoring and maintenance is planned to minimize the effects of wind and water erosion?

What are the details of the design features of drainage control facilities which are intended to "accommodate sediment loads caused by upstream erosion" and "avoid conditions that could result in channel blockage due to sedimentation" (DEIS 2-26)?

What are the design features and effectiveness of drainage control facilities intended to serve to "avoid excessive erosion of key diversion channels" (DEIS 2-26)?

What are the design features and capacities intended to discharge flows from man made channels back into desert washes from which they were diverted rather than create new erosion channels?

386 Dust control: What precautions would be taken to prevent increased generation of fugitive dust during periods of high winds? How much water is expected to be used for dust control on a daily and annual basis? How will water application vary during summer months or windy periods?

387 Storage of Recyclables: What actions would be taken it if is later determined that materials shipped to the proposed project site for storage as recyclables contain hazardous wastes? To what sites would stored materials eventually be transported, or would most be landfilled?

Sec. 2.1.5 LINER AND LEACHATE MANAGEMENT SYSTEM

388 Liner: DEIS discussion of liner and leachate collection system is extremely vague and missing so much important detail as to be seriously inadequate. DEIS Appendix B "Hydrogeology Technical Report", including its Appendix H.1 "Triple Composite Liner" are inaccurate, inadequate, unconvincing, and leave many technical questions unanswered. The description of the liner system as a "triple composite liner" is inaccurate and misleading. Even a liner system which the applicant asserts exceeds existing and proposed state and federal requirements is inadequate in light

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 385

Site drainage control facilities are shown in the Draft EIS/EIR Figures 2-14 through 2-16.

The main diversion structure would be a 200-foot wide earthen channel which would divert flow along the northern boundary of the proposed footprint to the west side of the landfill as shown in Figure 2-16. An interim drainage channel, shown in Figure 2-15, would initially be constructed because, when operations begin, an existing mine overburden pile would be in the way of the permanent channel location. This is also depicted in Figure 2-15. A permanent channel constructed along the western project boundary would convey flow from the interim channel to the swales across SR 78. Based on the preliminary design, this channel would be concrete-lined and about 80- to 90-feet wide. Flows would be released from the western boundary channel at three locations, approximating previous natural flow conditions in the area. Erosion protection would be provided at these locations as necessary.

When the final drainage configuration shown in Figure 2-16 is established, it would include expansion of the landfill over the interim drainage channel to the north and eastward over the Mesquite Mine leach pad area. A permanent channel for the northern boundary, referred to above, would be built to replace the interim channel. The 90° bends that appear to be present in the figures are misleading. The bends in the drainage channels have been designed to control flows from the site area. The apparent 90° angle is only because of the very small scale of the drawing in the Draft EIS/EIR. Details of the drainage structures and design for the proposed landfill have been submitted to the RWQCB for review in connection with the Report of Waste Discharge (ROWD). This design-level detail is not required for an environmental analysis.

Once completed, the detailed design would be reviewed for adequacy by the Imperial County Department of Public Works and the Regional Water Quality Control Board. This design would be a public document available for public review. The Applicant would monitor erosion and conduct repairs as needed to meet design criteria. Periodic inspections by the County and others would confirm that erosion is fully mitigated.

Response to Comment No. 386

Please see Section 4.1.8.6 of the Draft EIS/EIR, which describes a three-tiered fugitive dust control plan. Section 4.1.8.4 of the Draft EIS/EIR includes a discussion of how these control measures would be implemented to assure dust control. Several hundred acre-feet of water would be used per year for dust control, with more water needed on hot summer and windy days. Water use at the proposed landfill would not exceed the permitted capacity of the Mesquite Mine Well Field.

Response to Comment No. 387

Hazardous materials would not be eligible for storage as recyclable materials. If recyclable materials delivered to the proposed landfill for storage were subsequently determined to be hazardous, these materials would be treated in the same manner as hazardous materials found in the MSW residue (EIS/EIR Sections 2.1.4.8 and 4.1.12.3). Stored materials likely would be shipped to markets, returned to the originating jurisdiction, or landfilled.

Response to Comment No. 388

The description of the proposed liner system is adequate for purposes of environmental analysis under NEPA and CEQA. Please see response to Comment No. 105. RWQCB staff has preliminarily agreed that the proposed liner system meets the definition of an alternative liner as defined under 40 CFR 258.40. The commentor's statement that the proposed liner system is inadequate is noted. Please see EIS/EIR Section 2.4.5 and response to Comment No. 110.

of previously cited references to landfill liners and leachate collection systems because the materials from which those systems are made is inadequate for the essentially eternal nature of the task.

The discussion of a "triple composite liner" is inaccurate and misleading, because the DEIS [and Appendix B:H) only describes a single composite liner. (Lee 1994.) Indeed, US EPA's solid waste disposal facility 40 CFR 258.40 design criteria defines "a composite liner" as follows:

> (b) For purposes of this section, composite liner means a system consisting of two components: the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than $1X10^{-7}$ cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component. (US EPA 1991:51021.)

Does the DEIS refer to the single composite liner required by EPA 40 CFR 258.40(b) as a "triple composite liner" simply because the proposed composite liner includes three distinct layers, or is it an attempt to make the liner system appear to include three separate but undiagrammed liners systems which also do not appear in Table H.1-1 of Appendix B? Reviewing the 40 CFR 258.40(b) definition for "composite liner", the proposed project would not even be considered to have a "double composite liner" because it contains only one clay layer. Who determined that the proposed liner system as an alternative to US EPA requirements actually exceeds state or federal requirements?

Why doesn't the proposed project's "triple composite low permeability liner," which is purportedly highly resistent to gas or liquid penetration, (Appendix B:2-3; Table H.1-1; H.1-11) meet the minimum criteria of the EPA's 10/9/1991 Final Rule 40 CFR Parts 257 and 258 Solid Waste Disposal Facility Criteria for Subpart D Design Criteria Sec. 258.40 (b) for a 2 foot layer of compacted soil of specified hydraulic conductivity? The federal criteria require "at least a two foot layer of compacted soil with the hydraulic conductivity of no more than $1x10^{-7}$ cm/sec." (US EPA 1991;51021.) The project proposes a 1 foot thick layer of compacted clay with a permeability of 10^{-6} cm/sec instead. Has the State of California approved the alternate liner system as proposed?

The project proppses a 1 ft thick layer of compacted clay with a permeability of 10^{-6} instead. Why does the DEIS call the single composite liner with 2 FMLs a "triple" composite liner (DEIS 2-37 et sec.)? The composite liner of 40 CFR Sec. 258 includes a 2 ft. clay layer with a FML liner; the proposed liner includes 1 foot clay layer and 2 FMLs, not 3 clay layers, each with an FML layer.

389 What company or companies will be manufacturing the very low density polyethylene (VLDPE) flexible membrane liner (FML) and the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 389

Please see response to Comment No. 110. The public is protected by the financial assurances described in Section 2.1.18 of this EIS/EIR. The liability of other parties is beyond the scope of this analysis.

HDPE liners proposed to be used at the proposed project site? What are the manufacturers warranties, duration and special or prorated conditions? Does the manufacturer assume financial liability for clean up if groundwater contamination results from failure of the FMLs? Does the installer assume financial liability if there are leaks at seams or punctures? Please include copies of all applicable manufacturer's warranties for liners to be used at the proposed project site.

390 DEIS asserts that; "In order for a leak to occur through the triple liner system, there would have to be defects in both FMLs and a crack in the clay at approximately the same location." (DEIS 2-39.) Based on conversations with Lee (1994), RWQCB staff, and articles by ERF, and Lee and Jones-Lee, we are unconvinced of the effectiveness of the proposed system in the face of Murphy's Law.

RHWN #316 reported that recent scientific studies had indicated that "landfill liners of compacted clay leak readily too." Bonaparte & Gross's 1990 article on "Field Behavior of Double Liner Systems" in Bonaparte (editor) Waste Containment Systems:Construction, Regulation, and Performance [Geothechnical Special Publication No 26] New York, American society of Civil Engineers, concludes that:

> [I]f a naturally occurring clay soil is compacted to high density, thereby producing a material with very low hydraulic conductivity, and if it is maintained within the same ranges of temperature, pressure, and chemical and biological environment, it would be expected to function well as a seepage barrier indefinitely. In waste containment applications, however, conditions do not remain the same. The permeation [penetration] of a compacted clay liner by chemicals of many types is inevitable, since no compacted clay or any other type of liner material is either totally impervious to chemical interactions of various types. (emphasis in original.) (Cited in RHWN #316.) In addition, most clay liner systems are subjected to distortional stresses that may cause differential movement. If these movements lead to formation of open cracks, then the liquid retention ability of the system will be lost. (cited by Lee 1992:8 as Mitchell and Jabar 1990.)Mitchell

Based on our review of studies, we are unconvinced of the Applicant's assurances of little or no leakage even with the proposed composite liner system, simply because there are serious chemical and physical problems associated with each liner in the system under changing chemical, biological, physical, pressure and temperature conditions that will occur throughout the life of the proposed landfill. Why doesn't DEIS cite sources at appropriate places to support assertions, and why doesn't DEIS provide full disclosure of uncertainties associated with the technologies?

391 Quality Assurance re liner installation: The effectiveness of a composite liner system is related in part to the ability to achieve intimate contact between the FML and underlying soil

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 390

Please see response to Comment No. 110.

Response to Comment No. 391

Please see response to Comment No. 110. With implementation of the construction QA/QC program described in response to Comment No. 110, this is not expected to be a serious concern.

throughout the lined area. How precisely does the applicant intend to achieve composite liner characteristics (FML and compacted clay) in the construction of the liner? What is the anticipated area of the liner in which intimate contact between the FML and soil-clay layer will not be achieved? What will be the impact on the rate of leachate transport of not achieving intimate contact between FML and the soil-clay layer over that non-composite area if enhanced LFG generation is used?

392 What are the details of the QA/QC monitoring during installation of LF composite liner, LCRS, LFG collection and monitoring systems? Will there be independent third party on site inspections at all times during installation? Will there be additional fourth party review? How will the liner seams be monitored for leaking?

What company would install the liner system? How many mega LF liner systems (and in what locations) has the company installed LF liners? How many years does the company have in such field installations? What independent quality assurance inspections are planned? By whom, continuously, or with what frequency?

393 What are the design specifications for composition and moisture content of the compacted clay liner and how frequently would the clay liner require wetting to avoid desiccation cracking as mentioned in Appendix B:H.1-8? What inspection would be required prior to LF operations?

"From the Second law of chemical thermodynamics it is unreasonable to expect that plastic sheeting would not deteriorate over time or would not fail to function as an effective liner for landfills" (Lee & Jones 1992:20).

> First, even the best liner and leachate collection system will ultimately fail due to natural deterioration, and recent improvements in MSWLF (municipal solid waste landfill) containment technologies suggest that releases may be delayed by many decades at some landfills. (US EPA 1988:33345.)

394 Why does Appendix B:H.1 assume that the proposed composite liner system will retain its integrity and performance standards essentially forever? Why does Appendix B:H.1-9 refer to leakage migrating a "significant distance during the entire operating life of and segment, or the entire landfill" rather than for thousands of years if the toxic constituents will remain in the landfill even after post-closure? Where are the reports from independent testing laboratories that verify this kind of product performance?

395 How will the moisture content of the compacted soil-clay liner be monitored throughout the life of the LF? How will the problem of desiccation cracking be identified and remedied if moisture properties of the clay liner do not remain at the original level? How would the FML liners and compacted clay respond to distortional stresses that may cause differential movement and cracking? How would the FML and compacted clay be monitored for such increased permeability and/or stress cracking of the FML liner

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 392

Please see response to Comment No. 110.

Response to Comment No. 393

Please see response to Comment No. 110.

Response to Comment No. 394

The three component composite liner is designed to minimize the potential for desiccation of the clay portion of the liner. This is based on the presence of the lower FML, which would serve to protect the clay layer from the low-moisture content of the underlying ground. For this reason, no monitoring of clay moisture is planned. Please see response to Comment No. 110 for a further discussion of this issue, as well as a discussion of other topics concerning physical performance of the proposed liner. The landfill surface would be carefully inspected after seismic events by the Applicant and the LEA. In the event of a significant seismic event, representatives of the CIWMB may also inspect the proposed landfill. Response strategies would be implemented by the Applicant and overseen by the appropriate regulatory agency(s).

Response to Comment No. 395

Please see response to Comment No. 110. The landfill would be inspected for damage after any seismic event. The base liner, LCRS and LFG systems would be checked through the monitoring procedures for these controls to assure continued consistent performance.

differential movement of the compacted clay layer? What actions would be taken to remediate increased permeability of the liner systems and changed moisture content (increased moisture or desiccation) at specific sites within the compacted clay layer? What inspections will be done to assess liner, LCRS, LFG system integrity after a major earthquake in the County? When will post earthquake systems integrities be reassessed, and by whom and how? Will remedial or corrective action be implemented if necessary? How?

396 What is the nature and composition of the "16 ounce geotextile fabric" used to protect the HDPE from punctures (DEIS 2-39) and the 8 ounce geotextile fabric "to provide increased friction strength between geogrid and the underlying FML" (DEIS 2-52)? What are the chemical and physical performance characteristics of each geotextile for the proposed application? What studies have been done on this material (these materials) for use in a landfill liner system? What is the long term performance record of this proposed geotextile fabric(s) under pressure and with exposure to various chemicals in the leachate and high temperatures? What are the manufacturer's warranties for the proposed geotextile(s) to be used? When was this material developed and for how long has it been used in landfill liner systems? Will both geotextiles be from the same manufacturer? If not why not? Who is the anticipated manufacturer?

397 What is the composition and chemical and physical properties of the "free-draining geogrid" (DEIS 2-52) of the proposed secondary leachate drainage layer in southern and western boundaries of the proposed LF? What are the manufacturers specifications, performance standards under similar field applications in landfills, and manufacturers warranties and expected lifetimes for the geogrid material under the proposed long term application in LFs?

398 What is the expected lifetime of the buried geotextiles and buried FML in the proposed LF to be located in the warm/hot environment of Imperial County? How are the lifetimes of buried FMLs geotextiles and geomembranes exposed to different degradation processes coming from chemical interactions and extremely long time frames of exposure to liquids of the leachate different from the performance of the same plastics exposed to air? What independent studies or manufacturers information support lifetime estimates for use in landfills? Koerner et al (1990) suggest that tests "may significantly misrepresent the actual long-term performance of geomembranes." (cited in Lee & Jones 1992:21.) Peggs & Carlson (1990) state that:

> over extended periods of time polyethylene will also fail by brittle cracking at essentially zero elongation. .... Brittle fracture, including various forms of stress cracking, fatigue, and slow crack growth, occurs in PE geomembrane [and PE pipe including HDPE pipe]. (cited in Lee & Jones 1992:21, 22.)

Indeed, as the US EPA (1988) noted that with reference to the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 396

Please see response to Comment No. 110.

Response to Comment No. 397

Please see response to Comment No. 110.

Response to Comment No. 398

Please see response to Comment No. 110. U.S. EPA's final rulemaking concluded that a properly designed, constructed, and monitored landfill with a composite liner would protect the environment. The U.S. EPA has not amended Subtitle D and their comments on this EIS/EIR did not question the effectiveness of the proposed liner or LCRS.

lined MSWLFs that: "once the unit is closed, the bottom layer of the landfill will deteriorate over time and, consequently, will not prevent leachate transport out of the unit." (Cited in Lee & Jones Lee 1993b.)

What is the documented sensitivity and/or responses of the proposed liner materials to acidic and/or caustic compounds, to aromatic hydrocarbons, and to oils potentially in MSW residue or resulting from interactions of materials which could reasonably be anticipated in MSWLFs? Please provide answers for liner system, LCRS, and LFG collection system components.

Some of the conclusions of a 1988 meeting convened by US EPA on the service of FMLs and other synthetic polymeric materials in landfills include the following:

> The polymers that were discussed and first-grade compounds based on these polymers should maintain their integrity in landfill environments for considerable lengths of time, probably in terms of 100s of years. Nevertheless, when these polymers or compounds are used in products such as FMLs [flexible membrane liners], drainage nets, geotextiles, and pipe, they are subject to mechanical and combined mechanical and chemical stresses which may cause deterioration of some important properties of these polymeric products in shorter times. (Haxo and Haxo 1988, cited in Lee 1992:7.)

There were also "areas of concern that may affect the service life of components of liner systems and the functioning of the liner system as originally designed." (Haxo and Haxo, cited in Lee 1992:7.) The areas of concern included the following:

> The combined mechanical and chemical stresses under which the liner system functions may cause cracking and breaking of the components due to environmental stress-cracking or possibly to mechanical fatigue under long service.
>
> Seams of FMLs continue to be an area of concern, as none of the test methods truly assess the effects of long-term exposure in landfills.
>
> Clogging of drainage and detection systems continues to present a problem. The clogging can be by biological clogging due to growth or sedimentation or through precipitation of dissolved constituents. (Haxo and Haxo 1988, cited in Lee 1992:7.)

These are essentially the conclusions of the US EPA in the MSWLF rulemaking. What, if any, studies have documented a resolution of these problems associated with the use of FMLs and other polymeric materials in MSWLFs since US EPAs final rulemaking?

Sec. 2.1.5 LEACHATE COLLECTION AND REMOVAL SYSTEM:

399 What is the expected composition of the leachate in the proposed landfill?

400 What is the material from which the leachate collection and removal system (LCRS) (DEIS 2-39) will be made? What are the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 399

Please see response to Comment No. 110. Moisture within the MSW residue would most likely include common inorganic constituents such as chloride and sodium, as well as trace concentrations of organic constituents found in LFG such as those listed in Table 4-7 of the Draft EIS/EIR.

Response to Comment No. 400

Please see responses to Comment Nos. 110 and 380. We are not aware of any such tests. The proposed landfill would exert approximately 140 pounds per square inch on the liner and LCRS. Yes, the LCRS materials do perform differently under different conditions; however, they are expected to perform adequately at the proposed landfill.

long-term field responses to exposure to a variety of MSW leachate residues? What performance tests have been done to simulate long-term exposure to various chemical compositions to leachate under pressures equivalent to that of a 450 foot depth of compacted MSW residue and cover materials? What is the estimated pressure or weight of the compacted MSW residue and cover materials up to 475 feet deep on the LCR system at the base of the LF? What is the diameter of the perforated leachate collection system pipes? What is the nature, closeness, positioning, and dimensions of perforations in the leachate collection pipes? What measures or characteristics of the LCRS pipes or their installation will insure that perforations do not become clogged or pipes collapse through time? What are the cited references to support these assertions? How will leachate collection pipes be installed to maintain a gradient (DEIS 2-39) during differential settling during the life of the landfill and for the hundreds of years post-closure? At what intervals will slope or gradient of the leachate collection pipes be measured and checked during installation? What checks will be performed to ensure that leachate collection pipes are open and not blocked after installation and after decades in place in the LF? DEIS 2-39 text suggests <u>all</u> leachate would migrate to the SW corner and be removed at that site. How would such a system hold up over the 100 year active life of the proposed project and through post-closure centuries?

Who manufactures the perforated leachate collection pipes? What are the duration and conditions attached to the manufacturer's warranties? Please include copies of all applicable manufacturer's warranties in an appendix. What are the details of the manufacturer's and independent studies of compatibilities or incompatibilities of the leachate collection pipes and chemicals found in typical landfill leachate? Please include a copy of the study or summary of study results in Supplemental DEIS. For how many years have leachate collection pipes of the same material manufactured by the same company been used for the proposed purpose in landfill leachate collection systems in the hot southwest climates? Do these leachate collection pipes perform differently in different climates and at different temperatures or through time? If so, how?

401 What is the distance between leachate collection pipes? What are the details of the grid pattern of the proposed leachate collection system? Why isn't this information included in the DEIS text where it is readily reviewable by all readers? Sequestering technical information in handwritten sheets in a sub appendix is inadequate for an EIS for a project of this magnitude. Most decision makers are probably unlikely to discover or decipher such information.

402 What is the location of the leachate holding tank for each landfill segment (DEIS 2-39)? What is the size (dimensions and gallons) of each holding tank and how many feet of leachate collection pipes are connected to each holding tank? Of what materials will the tanks be made? What is their estimated life? How precisely would "measurement and testing of any leachate

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 401

Sheet 10 of cross-section AA in Appendix H-2 of Appendix B of this EIS/EIR shows that the conceptual spacing between collection pipes would be 100 feet. This information was available for public review at the BLM El Centro Resource Area Office, County of Imperial Planning Department, at the 23 libraries listed on the back of the first page in the Draft EIS/EIR, and at the State Clearing House.

Technical design and detailed environmental information is contained in the Technical Appendices where it is available to readers who are interested in such details. CEQA (CCR 15147) states that placement of highly technical and specialized analyses and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR.

NEPA (40 CFR 1502.7) and CEQA (CCR 15141) state that the text of an EIS/EIR should normally be less than 150 pages and no more than 300 pages for proposals of unusual scope or complexity. Please note that given the unique scope and complexity of the proposed project, this EIS/EIR is over 500 pages in length.

Response to Comment No. 402

Please see response to Comment No. 110. Leachate testing data would be included in periodic monitoring reports prepared by the Applicant and regulatory agencies, and will be described in the MMRP. These periodic monitoring reports would be available for review by the public.

collected" (DEIS 2-39) be made? Would there be independent third party inspection and public review of findings available?

403 Potential Leachate generation/MSW Moisture Content

Why does DEIS Appendix B/appendix H.1, Triple Composite Liner assert that "potential leachate generation would only be associated with rain which may fall onto and infiltrate through the compacted municipal solid waste (MSW) residue" (Appendix B; H.1-2)? Surely every homeowner is aware that there are times when containers containing moisture or liquid residue are disposed of in the waste stream, in addition to moisture in food residues and green wastes (DEIS 2-40). What is the anticipated moisture content of MSW residue arriving from other communities in Southern California? Why does DEIS ignore information included in US EPA proposed and final rules for MSWLFs and in Appendix F Table 6-2?

Section 258.28 Liquids Restrictions prohibits "disposal of bulk and noncontainerized liquid wastes in MSWLFs with two exceptions: (1) The waste is household waste (other than septic waste) and (2) the waste is leachate or gas condensate that is derived from the MSWLF..." (US EPA 1991:51007.) The Final Rule states that:

> Containers of liquid waste could be placed in MSWLF units only when the containers: (1) Are small containers of the size typically found in household waste, (2) are designed to hold liquids for use other than storage, or (3) hold household waste. (US EPA 1991:51007.)
>
> The problems associated with the landfill disposal of containerized liquid wastes arise upon the eventual deterioration of the waste container. Liquids escaping from leaking containers will migrate to the bottom of the landfill acting as a transport and leaching medium for the wastes contained in the landfill. Liquids accumulating on landfill liners can contribute to liner failure through increased hydraulic pressure and/or chemical interactions. Increased hydraulic head due to liquid accumulation can increase the amount and rate of contaminant movement from the landfill to the ground water. Additionally, when waste containers degrade, allowing their contents to escape, they collapse under the pressure of the landfill. This situation can create voids in the landfill, which can lead to slumping and subsidence of the final cover. Once the integrity of the landfill cover is lost, infiltration of precipitation will increase, contributing to the leachate generation in the landfill. Collapse of deteriorated waste containers and subsequent damage to the cover material could occur after the post-closure care period of the landfill, when ground-water monitoring systems are not maintained to detect groundwater contamination. (US EPA 1988:33340.)
>
> The Agency [EPA] recognizes that landfills are, in effect, biological systems that require moisture for decomposition to occur and that this moisture promotes

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 403

Please see response to Comment No. 328 concerning why containers that could include significant volumes of liquids are not expected to be included in the MSW residue disposed at the Mesquite Regional Landfill. The volume of liquids from very small household waste containers would not create leachate because of the high absorption capacity of the remaining MSW residue.

Appendix F to this EIS/EIR acknowledges that there would be sufficient moisture in the MSW residue to support biological activity to create LFG. However, that moisture content would be below the level which could produce free liquid that has the potential to migrate downward through the landfill. Throughout this EIS/EIR, including page H.1-2 of Appendix H (Analysis of Triple-Composite Liner Performance) to Appendix B (Hydrogeology Technical Report), the moisture content of the MSW residue is a given and rainfall is a source of additional moisture that causes leachate to be generated at some landfills. The 23 percent moisture content of 25 percent recycled MSW and the 27 percent moisture content of 50 percent recycled MSW (see Table B.21 in Appendix B (Emission Tables) to Appendix F (Air Quality Analysis) are both far below the 40 percent field capacity of the MSW residue. Liquids in household waste are already included in the 23 and 27 percent moisture contents, and hence, could not cause the moisture content of the MSW residue to reach field capacity, which would be required to even start generating leachate.

decomposition of the wastes and stabilization of the landfill. The wastes received at landfills already contain moisture (10 % to 35% by volume), and more is added by rainfall and by the decomposition process itself. (US EPA 1991:51055.)

It was noted that: "Household [liquid] waste (other than septic waste) is exempted because it is beyond the practicable capability of owners and operators to effectively restrict the disposal of all household liquid waste." (US EPA 1988:33340.)

404 Why then does the DEIS assumption of leachate generation presume rainfall as the only source of moisture (Appendix 8:H.1-2)? Why assume only rainfall when Table S-1 identifies the acceptance of agricultural plant materials as a type of waste to be accepted at the proposed landfill (DEIS S-20)? How would the moisture content of the MSW residue be affected by the inclusion of "agricultural plant material [which] would be accepted at the proposed regional landfill to provide offsets for landfill related air emissions" (DEIS S-20)? What is the range of moisture content of agricultural plant material? What sources document this?

405 Have tests been performed to indicate what levels of seismic activity will result in stress cracking caused by horizontal and vertical components of earth movement? How will the integrity of the caps, liners, leachate collection and recovery system and landfill gas systems be examined and damage assessed after a seismic event of any magnitude? If problems are detected, how will it be possible to determine the precise location of a problem? Will the waste have to be removed to remedy the problem? If so how would waste removal be performed? Where would removed waste be placed during liner repairs? If repairs can't be made, the DEIS should so state.

406 **Clogging of the LCRS:** The porous layers of the LCRS tend to become clogged or blocked by biological growths "from many sources including slime and sheath formation, biomass formation, ochering, sulfide deposition, and carbonate deposition." (US EPA 1989 cited in Lee and Jones 1992:15.) US EPA (1989) described:

> Clogging is the primary cause of concern for the long-term performance of the leachate collection and removal systems. Particulate clogging can occur at a number of locations. First, the sand filter itself can clog the drainage gravel. Second, the solid material within the leachate can clog the drainage gravel or geonet. Third, and most likely, the solid suspended material within the leachate can clog the sand filter or geotextile. (US EPA 1989, cited in Lee & Jones 1992:15.)

What measures will be taken to prevent clogging or blockage of the porous layers in the LCRS of the gravel layer, geotextile fabric or perforated leachate collection pipes by biological growth-induced clogging or sedimentation or through precipitation dissolved constituents leading to ponding of leachate behind clogged areas? This problem is likely to be even more prevalent

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 404

Please see response to Comment No. 403.

If agricultural plant material is diverted from burning to create emission reduction credits for offsetting stationary source emissions, and if the plant material is landfilled, then the maximum amount of plant material would be 210 tons per day, which would be only 1.0 percent of the average rate at which MSW residue could be landfilled. This small addition could not significantly change the moisture content of the MSW residue, regardless of the moisture content of the plant material.

Response to Comment No. 405

Please see responses to Comment Nos. 110 and 380.

Response to Comment No. 406

Please see response to Comment No. 110.

in the warm temperatures at the proposed project side and because of the abundant food sources (including agricultural plant material (S-20)) for growth of micro organisms.

What measures will be employed to detect and remediate portions of the LCRS which have experienced clogging problems during the active life of the LF? How will detection and remediation of clogging in portions of the LCRS be done, including even 50 to 100 years post closure after the FML of the cover layers deteriorates and water enters during a storm event? How specifically will remediation be performed?

How are the LCRS and LFG piping systems different in their materials used and locations?

Sec. 2.1.6 LANDFILL GAS (LFG) CONTROL - Volatile Organic Compounds (VOCs)

407 DEIS discussion of volatile organic compounds emissions from the slow breakdown of solid waste over time is woefully inadequate, particularly in light of the 5/16/94 USEPA Region 9 fax entitled "U.S. EPA proposes draft air permit for Campo Landfill." The EPA fax includes the following discussion of VOCs for the 3000 tpd proposed Campo landfill in rural San Diego County:

> U.S. EPA's air quality impact report has determined that without controls the proposed [3,000 tpd Campo] landfill has the potential to emit 380 tons per year of VOCs. Use of gas collection systems and flares as set forth in the permit will reduce VOC emissions by about 90% to approximately 38 tons per year.
>
> VOCs react with sunlight in the atmosphere to form ground-level ozone, or smog. High ozone concentrations can impair breathing, irritate mucous membranes in the nose and throat, and may have depressive effects on the body's immune system. (US EPA 5/16/94 fax.)

If a 3,000 tpd landfill is anticipated to generate 380 tons/year of VOCs with emission reductions of 90% with all collection and flares, what is the anticipated VOC production from a 20,000 tpd LF project with a 100 year active life? Would it be approximately 7 times as much at the Campo landfill or 21,000 tons/year with 10% or 2,100 tons per year being released into the environment? Why does the Mesquite DEIS for a 20,000 tpd landfill refer to VOC generation as only "trace amounts" (DEIS 2-40), when US EPA indicates that the 3,000 tpd landfill at Campo would generate 380 tons/year of VOCs? The US EPA fax describes what appears to be a potential air quality problem, which logically would be greater at the proposed Mesquite project site, especially during winter air inversions. How would winter air inversions affect dispersal of the VOCs that escape collection or flaring at the proposed site? What is the potential health impact on employees at the active working face of the proposed LF? Where are DEIS estimates of VOCs to be found?

408 What is the composition of the perforated pipes of the landfill gas control (LFG) system? What is the diameter LFG piping

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 407

The discussion of project-related VOC emissions is adequate. The sentence in question in Section 2.1.6 of this EIS/EIR has been changed as follows: "The long-term decomposition of MSW residue results in the generation of landfill gas (LFG), which consists primarily of methane, carbon dioxide, and trace amounts of other constituents."

The comment is directed towards the control of landfill gas (LFG) and the emission of the volatile organic compounds (VOCs), also known as reactive organic gases (ROG), in LFG. To develop VOC emission information from the landfill surface, Puente Hills was chosen as the source of data because it is the most similar existing landfill and uses up-to-date LFG control technology. In contrast, the VOC emission information in the Final Environmental Impact Statement for the Campo Solid Waste Management Project (November 1992) was developed from the SCAQMD document "Landfill Gas Emissions: Report of the Task Force," dated July 1982. This report was based on a 1979 study of landfills at a time when only four percent of them even had a LFG control system.

The Proposed Action would use flares that destroy 99 percent of VOCs (or ROG) as discussed in Section 4.1.8 of the Draft EIS/EIR. This efficiency of destruction would be achieved through the use of combustion temperature higher than 1400 degrees Fahrenheit and a retention time greater than 0.6 seconds. The ROG emissions are shown as the stationary source rates in Tables 4-9, 4-10, 4-20, 4-21, 4-22, 4-23, and 4-24, and Figure 4-11 of Section 4.1.8 of the Draft EIS/EIR.

The effect of winter air inversions is taken into account through the dispersion modeling which analyzes the meteorological conditions for winter and the other three seasons in a complete year of data described in Section 4.1.8 of the Draft EIS/EIR. The model selects the worst day ground-level concentrations which are shown in Table 4-11 of the Draft EIS/EIR.

The question about health impacts on employees at the active working face is addressed by state and federal regulations. Federal Occupational Safety and Health Administration (OSHA) regulations and California Occupational Safety and Health regulations would be followed to assure safe, healthy working conditions.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 408

Much of the information requested in this comment is part of detailed engineering design that is normally provided in later design documents. Some of the information will be in the combined Report of Disposal Site Information and Report of Waste Discharge (RDSI/ROWD) required by the California Integrated Waste Management Board and the State Water Resources/Regional Water Quality Control Boards. Although this response will provide some of the detailed engineering specifications, the effect of the complete LFG control system is that over 80 percent of the LFG would be collected and destroyed. An indication of the conservative nature of this assumption is the actual operating experience at Puente Hills Solid Waste Management Facilities, where their collection efficiency is expected to be as high as 95 percent as they expand their capacity. See discussion in Section 4.1.8 of this EIS/EIR.

Concerning the parts of the comment on collector pipe material, diameter, thickness, perforation size and locations, pipe installation procedures, perforation openness monitoring, piping manufacturer and manufacturer's warranties, these details would not add to the analysis of environmental impact as required by NEPA and CEQA. Landfills have been operating successfully for many years with such horizontal collection systems, including landfills hundreds of feet thick in warm climates. Existing landfills are retroactively incorporating LFG collection pipes as a means to successfully control LFG emissions. The nature of LFG generation and flow in a porous medium is such that if a collector were to fail for any reason, the LFG pressure and flow fields would adjust so that adjacent collectors would extract the extra LFG. If necessary, new vertical collector pipes could be placed in the landfill to supplement the proposed system.

and dimensions and locations of perforations in the LFG piping system? How thick are the LFG pipe walls? How will the LFG pipes be installed to prevent clogging of perforations when the system is under a vacuum (DEIS 2-40)? Why isn't this information in the DEIS text itself?

What procedures will be employed to monitor LFG system performance to detect if all portions of the LFG piping system are open and unclogged and still under the vacuum of the design specifications? If any portion of the system is not performing up to specifications, what actions will be taken to detect and remedy the problem? What are the manufacturer's design and performance specifications for the LFG piping under more than 400 feet of compacted MSW residue after the 100 year life and 30 year minimum post-closure monitoring life of the proposed landfill? What are the manufacturer's written warranties for performance of the LFG piping? Are there any pro-rated specifications included with the warranty? What is the length of the manufacturer's warranties?

What are the LFG piping performance specifications for piping particularly at the 20 foot level above the landfill liner? If there is a vacuum on the piping, what will prevent clogging and/or crushing under the LF weight as LFG pipes age and are exposed to VOCs and various aromatic compounds? What is the "flexible plastic tubing or articulated sections of different diameter pipe" (DEIS 2-40) to allow conformation to LF settling without damage to LFG piping? Are all materials of the same chemical composition? If not, what types of plastics are to be used? Who manufactures the flexible plastic piping? What are the warranties, life of warranties, and design specifications for the flexible plastic pipe? Where have these been field tested and/or how have they performed at other landfills under hundreds of feet of MSW residue? At what other landfills are the LFG and flexible plastic piping from the same manufacturers been used in a warm climate, for how long and with what results? How have these materials performed in seismic events in other California landfills or in other California LFs under 400 ft. of compacted MSW residue and cover?

Sec. 2.1.6.1 LFG ENHANCEMENT PILOT PROGRAM:

409 Why does the proposed pilot "LFG generation enhancement project" include the addition of nutrients and moisture to MSW residue at the working surface (DEIS 2-44) when Appendix B:H.1-2 the only added moisture would be from rainfall? Would the LFG enhancement program involve increasing the moisture content of the MSW residue to 40% as suggested in Appendix F:6-13? Why wouldn't the addition of moisture for LFG generation also result in increased leachate generation?

At what other MSWLFs have such LFG enhancement programs been instituted? What MSW moisture content is needed/used at other LF sites where such programs are used? Are there any special potential problems with such a program at the proposed site where summer ambient temperatures reach 120°F? What additional groundwater monitoring and vadose zone LFG monitoring wells will need to be installed if full-scale LFG enhancement is approved throughout the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 409

Appendix B:H addresses normal operations of the proposed landfill, not the proposed pilot project. The pilot project would be implemented on a specially monitored cell of the proposed landfill as described in Section 2.1.6.1 of this EIS/EIR. The potential environmental impacts of the pilot project are analyzed throughout Chapter 4.0 of this EIS/EIR. One of the purposes of the pilot project would be to identify the optimum rate of moisture addition that would maximize LFG generation without creation of leachate. Nevertheless, in the event that leachate is generated by the pilot program, a vadose leachate monitoring layer would be added under all of the pilot test area as described in Section 2.1.6.1 of this EIS/EIR. Monitoring requirements for the pilot- and full-scale program would be reviewed and approved by the RWQCB and the CIWMB. The pilot program presented in this EIS/EIR would not have any significant impacts on the environment.

It is not certain that a full-scale LFG enhancement program will ever be conducted at the proposed landfill. The potential future implementation of a full-scale LFG enhancement program is addressed in this EIS/EIR to the extent possible at this time. However, because the details of how this potential program might work are unknown, it is not possible to conduct project-level environmental analysis of a potential future full-scale LFG enhancement program, and any detailed environmental analysis would be speculative. As such, this EIS/EIR adequately discloses to the public the potential for a future full-scale LFG enhancement program and defers project level environmental review until such time as the details necessary to determine the environmental impacts of a full-scale LFG enhancement program are known. This is not piecemealing a project.

proposed LF in the future? DEIS should not defer environmental review of the full-scale LFG enhancement program to some indefinite future time because "the environmental effects of a full-scale LFG generation enhancement program are analyzed generally throughout this [DEIS] document..." (DEIS 2-44.) DEIS failure to include discussion of "full-scale implementation of a LFG enhancement program" (DEIS 2-44) rather than postpone it to a future focused environmental analysis is to piecemeal the project and withhold full disclosure of the proposed project (especially potential groundwater impacts) from public review.

Sec. 2.1.6.2 ENERGY RECOVERY

410 The 2 pages of text, 4 pages of schematic diagrams for gas turbine power plant, boiler and power plant, compressed methane gas plant, and liquified methane gas plant, in addition to a diagram for the "arrangement of potential compressed natural gas pipeline to Niland" (DEIS Figs. 2-22 to 2-26) suggest implementation of LFG enhancement program. Consequently the full environmental analysis and mitigation monitoring program should be included in the Revised Draft EIS.

Sec. 2.1.7.2. VADOSE ZONE LFG MONITORING

411 What is the proposed spacing and location of proposed vadose zone gas wells to detect LFG or leachate? Why isn't this information included in the DEIS for public comment and review? From DEIS Fig 2-20 it appears that spacing would be about 1000 feet between vadose monitoring wells. DEIS makes no reference to the location of any such information in any DEIS Appendix. How would perimeter monitoring wells spaced so far apart be able to detect LFG or VOCs in the unsaturated vadose zone when wells are placed so far apart? Wouldn't the slug or finger of pollution from a point source leak tend to sink downward rather than spread horizontally? How would monitoring underneath the center of the LF footprint be achieved? The vadose zone monitoring appears inadequate, particularly if the full-scale LFG enhancement is implemented.

What is the distance of vadose monitoring wells from the landfill footprint? Why isn't this information provided in the Sec. 2.1.7.2 discussion? Why isn't a proposed monitoring schedule included for public review and comment? How can the public comment on the adequacy of either the proposed project or DEIS if essential information is withheld?

Sec. 2.1.7.3 POTENTIAL SUBSURFACE LEAK RESPONSE STRATEGIES:

412 How strong a vacuum would have to be placed on the LCRS system for a project of this size to reverse the flow of leachate if/when subsurface monitoring detects a release from the liner system (DEIS 2-54)? How would this remediate the potential for groundwater pollution in the future? How would increasing the air pressure below the leaking liner system serve to stabilize the problem (DEIS 2-54)? How would this be done? What literature supports these techniques and at what other southern California landfills have these techniques been successfully used and when and for how many years?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410

Given the amount of MSW residue that would be placed in the proposed landfill, it is likely that energy recovery would become a part of the project at some point in the future, regardless of whether LFG enhancement is undertaken or not. In preparing the Draft EIS/EIR, separate analyses of the potential environmental effects of future energy recovery facilities were prepared for each of the elements of the human environment. These analyses were summarized in the Draft EIS/EIR. In an attempt to reduce the volume of the Draft EIS/EIR, the summary descriptions of the environmental effects of the energy recovery facilities focused on significant environmental effects, as required by NEPA, CEQA, and the attendant implementing regulations. In response to this comment, the more detailed information is included below.

ENERGY RECOVERY FACILITIES

A number of comments were raised about the scope of the analysis of future energy recovery facilities in the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR). As indicated in Section 2.1.6.2 of the DEIS/EIR, collected landfill gas (LFG) would initially be destroyed at a flare station. As the collected LFG flow rate increases, however, flare emissions would exceed ambient air quality standards and create significant air quality impacts. As a result, the project design includes provisions for development of one or a combination of the following energy recovery facilities to assure that emissions remain at acceptable levels:

- A gas turbine or boiler based power facility.
- A compressed methane production facility.
- A liquefied methane production facility.

As indicated by the air quality analysis in the DEIS/EIR, development of one or more of these facilities would substantially reduce emissions from the proposed landfill. While selection of the particular type of facility (e.g., boiler versus compressed methane facility) based on economics, and environmental and technological considerations would be left to the Applicant, the DEIS/EIR description of the project assumes that one or more of these facilities would be constructed and operated in the future as part of the Mesquite Regional Landfill. As a result, the DEIS/EIR analyses were performed assuming these facilities would be in operation. Further, the emissions reductions from operating one or

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more of these facilities are factored into the evaluations of significance for air quality impacts for the DEIS/EIR. The terms "option" or "optional" are used throughout the DEIS/EIR when referring to the energy recovery facilities to indicate flexibility for selection of the type of facility to be implemented by the Applicant, subject to environmental standards established by the DEIS/EIR.

Based on the types of comments received, it appears that the energy recovery facility analyses for each element of the human environment were not clear to some of the commentors. This may be because for many of the elements of the environment, the presence of energy recovery structures among the other buildings in the intermodal area would not alter the impact conclusions. In such cases, these analyses contain an introductory statement indicating that the discussion includes consideration of the energy recovery facilities. By contrast, analyses, such as air quality, include segregated evaluations because the impacts of the energy recovery facilities are more separate and identifiable.

For convenience and in response to comments raised concerning this issue, the following presents the energy recovery facility impact analyses that were summarized in the DEIS/EIR in a single integrated discussion, organized by element of the human environment. A general description of the facilities precedes the discussions of specific impacts. Each impact discussion concludes with a determination of significance.

The discussion of impacts is as complete as possible. However, as indicated in the DEIS/EIR, additional environmental analysis may be required in the future to address localized impacts (see Public Resources Code 21083.3[b]) which may be associated with a particular energy recovery facility option (e.g., health and safety considerations for a compressed methane facility). The extent of any additional analysis would be determined in the future by the County of Imperial when the design for any such facility is formally presented by the Applicant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410 (Cont'd)

GENERAL DESCRIPTION

The types of energy recovery facilities proposed for future development at the Mesquite Regional Landfill are essentially "off-the-shelf" technology (technology that is very common) that are either currently in use at other modern day landfills in California (e.g., Puente Hills Landfill) or are common in other types of modern industry (e.g., liquefied methane production). Section 2.1.6.2 of the DEIS/EIR includes a full description of these facilities, including schematic diagrams of the anticipated processes. Volumes of discharge or waste products from each process are also identified.

Visually, the energy recovery facilities would be insignificant in relation to the landfill itself. Figure 2-8 of the DEIS/EIR shows how initially the flare, and subsequently the energy recovery facilities would be located in a designated 540,000 square foot area just northeast of the intermodal facility. Like other structures in the intermodal area, the actual configuration of the flare and subsequent energy recovery facilities are not needed to evaluate the environmental impacts. Generally, however, the energy recovery facilities would be expected to be contained within one or two structures, up to three stories high and with a combined size of approximately 50,000 square feet. The buildings would be painted desert tan to be consistent with other buildings in the intermodal area.

Once on site, access to the flare and energy recovery facilities area would occur along a road from within the intermodal area, as shown in Figure 2-8. Initially, it is anticipated that operation and maintenance of the energy recovery facilities would be performed by normal landfill maintenance or operating personnel (see Table 2-3). As energy recovery increases in scope (e.g., the 50 megawatt power plant), it is possible that a few additional personnel (up to a maximum of ten) could be needed. Actual personnel requirements would be identified in the future when the actual type of facility is selected and a design is formally presented by the Applicant.

Response to Comment No. 410 (Cont'd)

If the gas turbine or boiler based power facility is implemented, the electricity generated is expected to be sold to the Imperial Irrigation District (IID) or another utility. Preliminary discussions with IID have indicated that they would have an interest in such a source of power. The electricity would be transferred to the utility through the existing power line at the Mesquite site which would pass near the energy recovery facility area (see Figure 2-8). As a result, no new off-site impacts would occur from implementation of the gas turbine or boiler facility.

If the compressed methane facility is implemented, a gas pipeline to Niland would be installed underground along the proposed rail spur right-of-way (ROW) and existing Southern Pacific Transportation Company (SP) Main Line ROW (see Figure 2-22). This would allow commercial quality (i.e., purified to remove chemicals introduced into the gas from the landfill) methane to be transported to an existing natural gas transmission line in Niland for sale in the marketplace. The potential impact of the pipeline is also discussed in the following sections.

If the liquefied methane facility is implemented, the liquefied methane product would be transferred to off-site markets via tanker trucks or special rail tanker cars. This type of commodity is already transferred on the highway and along the rail haul route each day according to strict federal regulations. Therefore no significant hazards would be created. Nevertheless, the potential impacts are discussed in the following sections.

GEOLOGY/SOILS/MINERAL RESOURCES

POTENTIAL IMPACTS

As discussed in the DEIS/EIR, potential geologic impacts associated with site development would also apply to the energy recovery facilities since they would be located within the site area. However, implementation of the energy recovery facilities would not cause significant geologic impacts. Soils in the site area have little or no erosion potential. Minor soil erosion which could occur within the designated energy recovery facilities area due to precipitation runoff would be minimized by drainage structures (dikes and trenches) which would divert flows around the intermodal area to special drainage structures across Highway 78 (see Figures 2-15 and 2-16 of the DEIS/EIR).

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410 (Cont'd)

The energy recovery facilities would not affect mineral resources because they would be located within the site area. This area has been determined to be free of potentially economic resources through extensive exploratory drilling by Gold Fields in connection with the Mesquite Mine.

Regional seismicity is not expected to cause large ground motions at the project site. The energy recovery facilities would be constructed in conformance with the Zone 4 Uniform Building Code seismic safety standards.

The potential gas pipeline to Niland would be constructed underground, within the proposed rail spur ROW and the existing SP Main Line ROW. Therefore, there would be no impacts to mineral resources or feasible mineral resources. During and after construction of the pipeline, best management practices would be implemented to minimize erosion-related impacts. The pipeline route crosses the potentially active East Highline Canal Lineament (see Section 3.1.1 of the DEIS/EIR) and would be constructed according to construction standards for these facilities which would address seismic impacts related to ground rupture (reference to be provided).

MITIGATION MEASURES

The mitigation measures to minimize impacts to geology resources in the DEIS/EIR include all applicable regulatory requirements. Even though the impacts of the energy recovery facilities were not determined to be significant, specific measures are recommended to further minimize potential impacts:

- Energy recovery facilities shall conform with the Zone 4 Uniform Building Code seismic safety standards.

- Upon specific design information, seismic analysis shall be conducted and appropriate mitigation measures shall be implemented for the gas pipeline to Niland, if the compressed methane production facility is implemented.

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WATER RESOURCES

POTENTIAL IMPACTS

The maximum permitted ground water withdrawal rate for the site is 4,033 acre-feet per year. Even during the remaining 10- to 15-year projected life for the Mesquite Mine, the combined water needs at the site are anticipated to be between 1,500 acre-feet and 3,000 acre-feet per year. Therefore, a reserve capacity is available for use by the optional energy recovery facilities. Both the compressed and liquefied methane facilities would require water for cooling processes. Adequate water supplies are available for any of the energy recovery options, and impacts would not be significant.

Potential contamination from intermodal facility runoff has been addressed in the DEIS/EIR. Special drainage would not be required for the energy recovery facilities because they would be located in the intermodal area near other landfill operations and support structures. This area is designed to drain to structures shown in Figures 2-15 and 2-16 of the DEIS/EIR.

Fuels or wastes that could potentially impact water quality at the site would be managed to minimize the chance of contamination. Waste lubricating oil generated from the gas turbine or boiler power facility or the compressed methane production facility processes would require storage and off-site transport. Potential storage impacts would be minimized by installing all tanks aboveground and within lined spillage containment facilities. In addition, loading and unloading stations for these materials would be located within contained areas to collect any spillage that may occur.

Similarly, wastewater and recovered solvents from the energy recovery processes would be stored in aboveground tanks (with containment wall) or in double-lined containment systems to prevent potential spills from posing a threat to water quality. Loading and unloading of these materials would also occur within contained areas.

Notwithstanding these safeguards, minor spills could occur in connection with loading and unloading, or equipment maintenance activities. These spills, if any, would be excavated and removed to contained areas to await

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410 (Cont'd)

treatment or off-site transport. Procedures to respond to small spills would be developed with the Regional Water Quality Control Board (RWQCB) staff for incorporation in the landfill Waste Discharge Requirements (WDR). For the above reasons, impact to water quality from implementation of the energy recovery facilities would not be significant.

Construction of the potential gas pipeline to Niland from a future energy recovery facility at the site would incorporate best management practices to control storm water pollution. Once constructed, the gas pipeline could only impact surface or ground water if the pipeline were to leak. The pipeline would include pressure monitoring devices with automatic emergency shutoff valves in the event of a leak. If a leak were identified, repairs would be performed as necessary. Because of these procedures, surface and ground water impacts would not be significant.

MITIGATION MEASURES

Mitigation measures as outlined in the DEIS/EIR to control precipitation runoff and conserve water resources would also apply to the energy recovery facility area. Also, all appropriate regulatory requirements would apply to operation of the energy recovery facilities.

Though no significant impacts were identified, the following additional mitigation measures to protect ground water which apply to the energy recovery facilities are recommended to further minimize impacts:

- Fuel and other liquids with the potential to contaminate ground water shall be stored in aboveground containers within containment areas.
- Impoundments for the optional energy recovery facilities shall be designed and constructed with double containment liners, and with monitoring and pumpback systems to prevent high hydrostatic pressures on the bottom liner.
- Loading and unloading stations for recovered solvents shall be located within contained areas.
- The gas pipeline to Niland shall be subject to an ongoing automatic monitoring program for leaks and repaired as needed.

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BIOLOGICAL RESOURCES

POTENTIAL IMPACTS

As discussed in the DEIS/EIR, potential biological impacts associated with site development would also apply to the energy recovery facilities. However, development of these facilities is not expected to cause any additional biological impact or create any hazards for endangered or sensitive species. Therefore, potential impacts to vegetation and to wildlife habitat resulting from the energy recovery facilities are covered by the DEIS/EIR assessment for the landfill site.

Short-term construction impacts associated with the energy recovery facilities would primarily be associated with noise, and would not be significant because they would be consistent with ongoing site operations. Their impact would be further minimized by the distance of the facility from sensitive noise receptors. Noise from daily operation of the energy recovery facilities would be low because they would be in enclosed structures.

The potential gas pipeline to Niland would be located entirely within the existing SP Main Line ROW and proposed rail spur ROW. Limited disturbance of vegetation and wildlife within the proposed rail spur ROW would occur during construction of the rail spur. Vegetation and wildlife in the SP Main Line ROW has already been completely disturbed due to the installation of another pipeline and a communications cable within the last 20 years. Additional disturbance attributed to potential gas pipeline installation and maintenance would not be expected to be significant when considered with ongoing track maintenance activities which would already be occurring on the SP Main Line and rail spur.

Development of the energy recovery facilities within the site boundary would have no impact on the desert tortoise. Desert tortoise mitigation for the facilities area would already be performed by the time any of the energy recovery facilities are constructed. Therefore, this mitigation would include impacts for the energy recovery facilities. During construction of the pipeline within the rail spur and SP ROWs, mitigation measures consistent with those required for construction of the rail spur itself would be followed. This includes a preconstruction survey by a

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410 (Cont'd)

MITIGATION MEASURES

biologist and establishment of temporary fencing. In the event of a leak, automatic pipeline shutoff valves would minimize the potential for surface impacts. Temporary construction related to repair of any such leak would be performed and protective measures similar to those adopted for initial construction of the pipeline would be followed. Therefore, implementation of the energy recovery facilities would not significantly impact any endangered species.

The mitigation measures to minimize project impacts to vegetative and wildlife resources in the DEIS/EIR also apply to the proposed energy recovery facilities. Though no significant impacts were identified, the following additional mitigation measures to protect vegetation and wildlife are recommended to further minimize impacts:

- The gas pipeline to Niland shall be constructed to minimize potential impact to the desert tortoise. Installation of the pipeline shall be completed during the desert tortoise inactive period.

- Prior to disturbance, the gas pipeline construction area shall be surveyed by an approved biologist, and tortoise relocation (e.g., movement away from the construction area) shall be implemented as necessary. Temporary fencing, similar to that required for the rail spur construction, may be required to construct the proposed pipeline.

CULTURAL RESOURCES

POTENTIAL IMPACTS

Potential impacts to cultural resources within the project boundary have been assessed for the landfill and rail haul route. Implementation of the energy recovery facilities would be within the project boundary, and no additional land would be disturbed. Therefore no further impact to cultural resources would result from construction of the energy recovery facilities. Construction of the gas pipeline to Niland would occur within the proposed rail spur ROW and existing SP Main Line ROW. Since no cultural resources which are eligible for the National Register of Historic

Response to Comment No. 410 (Cont'd)

Places occur within these ROWs, cultural impacts caused by the implementation of the gas pipeline to Niland would not be significant.

MITIGATION MEASURES

Because the energy recovery facilities would be constructed within the area surveyed for the Proposed Action and would disturb no new unsurveyed land area, no mitigation measures are proposed. Cultural resource mitigation for the Proposed Action as determined by BLM, in consultation with the State Historic Preservation Office (SHPO), would fully mitigate the impacts of the proposed landfill, including the energy recovery facilities.

PALEONTOLOGICAL RESOURCES

POTENTIAL IMPACTS

No Paleontological resources exist within the project site including the area for the energy recovery facilities, and the proposed rail spur ROW. Paleontological impacts from use of the SP Main Line and pipeline construction are not expected since the ROW has previously been disturbed. Therefore, impacts, if any, caused by the energy recovery facilities would not be significant.

MITIGATION MEASURES

Implementation of the energy recovery facilities would not result in Paleontological impacts. Therefore, no mitigation measures are proposed.

TRANSPORTATION

POTENTIAL IMPACTS

Construction of any of the energy recovery facilities would result in a temporary increase in vehicle trips related to construction employee trips and truck material transport requirements. The additional trips on SR 78 from these construction activities would not be significant since this highway currently operates at a fraction of its capacity, with the only exception of winter weekend traffic in the Imperial Sand Dunes Recreation Area (see DEIS/EIR Section 4.1.6).

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Highway traffic impacts associated with the long-term operation of the facilities would primarily result from employee commuting, and the deliveries and periodic transport of cleansing solvents and oil (compressed methane and liquefied methane production facility options). A maximum of ten employees would be required to operate the facilities. The additional employee trips and deliveries would not significantly impact SR 78.

Construction and potential repairs of the gas pipeline to Niland may result in short-term lane closures at railroad crossings. Since these impacts would be one time only occurrences and last for only a few hours with alternate routes provided as needed, the impacts would not be significant.

If the liquefied methane facility is implemented, the product would be transported to off-site markets by either tanker trucks or rail tanker cars. If rail haul were used, a maximum of five liquefied methane tanker cars per day would be needed. This would require the periodic pickup of full tanker cars and drop-off of empty tanker cars. The volume of liquefied methane moved as part of these activities would represent a very small percentage of the tonnage of material (i.e., MSW residue) moved as part of this project. This activity would not noticeably increase impacts along the rail spur and therefore would not be significant.

If the tanker truck option is used, up to ten trucks per day could transport the liquefied methane off-site. The trucks would be standard liquefied methane transport tanker trucks certified in accordance with U.S. Department of Transportation (U.S. DOT) specification for tankers carrying compressed hazardous gases (49 CFR, Subchapter C, Part 178). These types of tanker trucks are commonly used on highways throughout California. Based on the low volume of trucks and the low volume of existing traffic on SR 78, this option would not cause a significant impact.

MITIGATION MEASURES

The mitigation measures to minimize project impacts from transportation in the DEIS/EIR include all applicable regulatory requirements. Though no significant impacts have been identified, the following additional measures applicable to the facility are recommended to further minimize impacts:

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- Alternative route designation would be provided around the affected at-grade railroad crossing during construction and repair of the gas pipeline.
- Only U.S. DOT-certified transport trucks and rail cars shall be utilized for the transport of liquefied methane.
- Loading and off-site transfer of liquefied methane shall be conducted in such a way to minimize impacts.
- Trucking of liquified methane shall not be allowed beginning the Friday afternoon before and ending the Monday morning after Holiday weekends between October 1st and May 31st each year.

NOISE

POTENTIAL IMPACTS

Short-term noise impacts would occur during construction of any of the energy recovery facility options. Construction is estimated to occur within a six month period.

Operational noise impacts from the energy recovery facilities would be minimal relative to ongoing landfill operations. Each type of facility would be located in an enclosed structure thereby minimizing noise impacts. Noise generated by any of the plants within the energy recovery facility area would have no effect on sensitive receptors.

The trains used to pick up liquefied methane tanker cars, if the liquefied methane facility is implemented, would be the same equipment that currently travels along the rail haul route each day. These trains would comply with federal noise emission guidelines and would not produce substantially different noise levels than the existing rail traffic. Therefore, the additional trains that would be used under the liquefied methane production facility option would be infrequent and would not cause significant impacts.

Construction of this pipeline would occur in compliance with all applicable noise regulations; therefore, impacts would not be significant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

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MITIGATION MEASURES

Implementation of the energy recovery facilities would not result in significant noise impacts to sensitive receptors. The noise emissions from the proposed project would be consistent with Imperial County noise control objectives. Therefore, no additional noise mitigation measures for the energy recovery facilities are proposed.

AIR QUALITY

POTENTIAL IMPACTS

The air quality analysis for the DEIS/EIR was performed assuming that energy recovery facilities would be incorporated into landfill operations. Inventories were provided in Tables 4-9 and 4-10 in the DEIS/EIR to show the emissions from energy recovery and pre-energy recovery (flare) facilities used to treat the LFG that would be collected in Years 16 and 100. These two years were selected for detailed air quality analysis because Year 16 is approximately when the South Coast Air Basin is supposed to reach specified air quality attainment goals (2010) and Year 100 is when the proposed landfill would generate the maximum amount of LFG. Year 17 is assumed to be the first year for implementation of energy recovery because the LFG collection rate is expected to become large enough to justify the capital investment by that time. The gas turbine or boiler based power facility is selected as the energy recovery system analyzed to be conservative because its impacts would be greater than the compressed or liquefied methane facilities (see Tables 4-21 through 4-24).

Because energy recovery combustion technology is proposed as an integral part of stationary source air quality control, the air quality analysis calculations were all performed with the energy recovery facilities included, as shown in Tables 4-9 through 4-12, 4-20 through 4-24 and Appendix F in the DEIS/EIR. As the analysis indicates, the air quality impacts of energy recovery for the proposed landfill would reduce emissions, and hence would further reduce the already less than significant impacts.

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MITIGATION MEASURES

Implementation of the energy recovery facilities would result in a reduction of air quality impacts from operation of the flare. Therefore, no additional mitigation measures are proposed.

LAND USE

POTENTIAL IMPACT

The energy recovery facilities would be located among other buildings in the intermodal area. An approximate 540,000 square foot area would be set aside to accommodate future energy operations (see Figure 2-8 of the DEIS/EIR). This area represents only a small portion of the site itself and, as shown, would be within the described operations and facilities area for the proposed project. There would be no impact on surrounding land use from the addition of the energy recovery facilities.

The potential gas pipeline would be consistent with land use in the SP Main Line ROW since that corridor already contains utility lines. Therefore, impacts would not be significant.

MITIGATION MEASURES

Implementation of the energy recovery facilities would not result in additional off-site land use impacts. Mitigation measures and a land exchange have been proposed to offset land use impacts from the entire site including the energy recovery facilities.

RECREATIONAL RESOURCES

POTENTIAL IMPACT

The energy recovery facilities would be located among other buildings in the intermodal area. An approximate 540,000 square foot area would be set aside to accommodate future energy operations. This area represents only a small portion of the site. The impact on recreational resources from the additional facilities would not be significant as the area for these facilities would be removed from recreational use when the landfill is developed.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

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Construction and operation of the optional gas pipeline to Niland would not result in significant impacts to recreational resources. The pipeline would be constructed in the proposed rail spur ROW and existing SP Main Line ROW. Construction would be accomplished according to all applicable public health and safety regulations.

MITIGATION MEASURES

Implementation of the energy recovery facilities would not result in additional off-site recreational use impacts. Mitigation measures and a land exchange has been proposed to offset recreational impacts caused by the entire proposed project. Additional mitigation measures for the energy recovery facilities are not necessary.

VISUAL RESOURCES

POTENTIAL IMPACT

The energy recovery facilities would be located among other buildings in the intermodal area. An approximate 540,000 square foot area would be set aside to accommodate future energy recovery operations. This area represents only a small portion of the entire project site. The energy recovery facilities would be located within one or two enclosed structures, up to three stories high in the same area as the LFG flares. To reduce visibility, these facilities would be painted desert tan. The activity and movement associated would be lower than other nearby more active parts of the site (e.g., the intermodal facility). Lighting at the intermodal facility would be bright for operating safety reasons. The energy recovery facilities would be enclosed with few if any windows, only limited safety lighting would be visible (similar to most industrial buildings at night). As a result, lighting impacts would be minimal.

The potential gas pipeline would be installed underground within previously disturbed rail spur and SP Main Line ROWs without significant visual impact.

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MITIGATION MEASURES

Mitigation measures which would be implemented to minimize the visual resource impact of the energy recovery facilities include the following:

- Proposed landfill support facilities and equipment shall be painted desert tan.

- Night lighting shall be directed down and the presence of reflective material on-site shall be minimized to reduce lighting disturbances.

ENVIRONMENTAL HEALTH AND SAFETY

POTENTIAL IMPACT

Construction and operation of any of the energy recovery facilities would occur in accordance with applicable state and federal occupational safety laws and regulations, including California Occupational Safety and Health Administration (Cal-OSHA) and OSHA. The worker safety procedures described in the DEIS/EIR for regular landfill operations would also apply to the energy recovery facilities. Also, health and safety procedures to address special hazards would be developed for employees that would work at these facilities (i.e., compressed gas leaks or tank rupture). In addition, site representatives would receive special OSHA training for emergencies and for the safe handling of hazardous materials at the energy recovery facilities. A site Health and Safety Plan would be developed for operation of whichever energy recovery facility is selected for implementation at the site. The plan would be developed in accordance with applicable federal and state laws concerning safe operation of such facilities. As a result of these activities, no significant on-site health and safety impacts would occur.

As the site would be fenced to prevent public access, and the facilities would be set back over one-half mile from the site fence, no special threat to public safety would result from on-site operations of any of the energy recovery facilities. Off-site transfer of compressed or liquefied methane would occur in accordance with federal laws concerning transport of these materials. As a result, off-site transfer is not expected to create significant impacts.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

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Construction of the gas pipeline within the rail spur and SP Main Line ROWs would be performed consistent with standard construction health and safety controls for these types of facilities. As a result, impacts would not be significant. Gas pipelines are commonly found in rural and urban areas and provide no significant impacts. Therefore impacts would not be significant from a project or cumulative perspective due to the presence of the existing gas transmission pipeline in Niland.

MITIGATION MEASURES

The energy recovery facilities would comply with all applicable regulations. No additional mitigation is necessary.

SOCIOECONOMICS

POTENTIAL IMPACT

Implementation of the energy recovery facilities would increase the economic benefits to Imperial County. These impacts would result from the purchase of goods and services and payment of direct wages to construct, operate and maintain the facility. The level of socioeconomic impact would depend on the size of the facility. It is anticipated that a facility producing up to 50 megawatts may be operated at the proposed site. Such a facility could result in increased project-related purchases of goods and services of up to 10 percent. Also, wages would be paid to personnel working at these facilities, resulting in additional potential construction to the local economy. Of the optional energy recovery facilities considered in this DEIS/EIR, the boiler/generator based power facility would have the potential to create the greatest employment and income benefits. Table 4-29 of the DEIS/EIR summarizes these benefits for a power plant of up to 50 megawatts.

Transport of gas by pipeline is also not expected to negatively affect property values along the ROW. Underground gas pipelines are very common in rural and urban areas. As a result, property values would not be expected to decline based on this factor. In addition, the pipeline would be buried in the already disturbed ROWs thereby not affecting additional area. The SP Main Line has been in service since 1877. The presence of the rail line and ROW is known to potential land buyers and is a large factor affecting property value. Therefore, socioeconomic impacts

Response to Comment No. 410 (Cont'd)

from adding a gas pipeline within the ROW corridor would not be significant.

MITIGATION MEASURES

Implementation of the energy recovery facilities would result in beneficial socioeconomic impacts. No mitigation would be required.

PUBLIC SERVICES AND UTILITIES

POTENTIAL IMPACT

The energy recovery facilities are a small part of the Proposed Action. Implementation of the energy recovery facilities could result in a site employee increase of up to 10 percent and would not result in additional public services and utility impacts. The impact on public services and utilities from the additional facilities and employees would not be significant.

Surplus electricity and compressed or liquefied methane could be sold as a commodity to local utilities in the marketplace and, therefore, add a revenue resource for the Mesquite Regional Landfill.

MITIGATION MEASURES

Mitigation measures have been proposed to offset impacts caused by the proposed project, including the energy recovery facilities. No additional mitigation would be required.

ENERGY CONSUMPTION/CONSERVATION

POTENTIAL IMPACTS

It is possible that the on-site generation of electricity would supplement supplied power if LFG production rates in the proposed landfill become large enough for energy conversion. Commercial quality methane could also be developed for sale at off-site markets. Energy benefits would depend upon LFG generation rates, technological developments, economic feasibility, and selection of energy conversion techniques.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 410 (Cont'd)

MITIGATION MEASURES

Implementation of energy recovery facilities would have a beneficial impact on energy consumption and conservation. No additional mitigation would be required.

CONCLUSION

The addition of the energy recovery facilities to the proposed landfill would result in a net beneficial impact. The facilities would be located on-site in an already disturbed area. The presence of the energy recovery facilities among the other buildings area would not be very noticeable and would cause little, if any, additional impacts on the proposed landfill site. On the other hand, the analysis shows that development of the energy recovery facilities would be expected to provide a positive effect on air quality, socioeconomic, and energy issues.

Response to Comment No. 411

Please see response to Comment No. 110. More detailed design information will be available for public review during future permitting by the LEA and RWQCB. The detailed design required for those permits is not required for an EIS/EIR. The MMRP will include a discussion of the expected monitoring schedule.

Response to Comment No. 412

The commentor asks a series of questions concerning potential subsurface leak response strategies. It should be noted that state regulations require that any potential response strategy in the event of a release be submitted in writing for approval to the RWQCB. The strategy would also be reviewed by the CIWMB and the LEA. The response strategy would be based on detailed investigations as to the potential source of the release and the proposed response would be engineered to address the specific conditions identified. The potential subsurface leak strategies described

Response to Comment No. 412 (Cont'd)

in Section 2.1.7.3 of this EIS/EIR are provided to indicate a potential range of activities that could be used individually or in some combination in order to address a release. This list is not intended to present the full range of possible responses. Rather, it is meant to provide a list of reasonable potential responses to assure that feasible response activities are available. Based on the information presented in Section 2.1.7.3 of this EIS/EIR, a determination can be made that adequate response activities are available. What follows is an elaboration on the presented strategies in response to the commentor's questions.

The goal of response strategies would be to control the leak. For example, adjusting the vacuum on the existing or an expanded LFG collection system, or placing a vacuum on the LCRS system would be designed to reverse the flow of the leak or at least stop any downward migration. The amount of vacuum required would have to be determined based on the extent of the leak and other engineering factors such as spacing of the wells, and the desire to prevent air from being introduced into the landfill through excessive pulling on these vacuums. The reference to additional directionally drilled wells under the liner is provided as an example of a strategy to control downward migration of a release by introducing a higher pressure in the area of the release pushing up against the leaking material. The reference to a low-permeability soil layer at intermediate levels within the affected portion of the landfill is intended to provide an example of how the area above a leak could be capped with a layer of clay, for example, if there was a concern about potential future rain infiltration. (This is not likely, however, due to studies on proposed daily and intermediate cover, which indicate that infiltration due to rain is likely to only be very small.) Landfilling could actually continue above this capped area. As described in response to Comment No. 380, it is not likely that excavation of the landfill to repair a liner would ever be proposed in response to a release. These response strategies are based on fundamental engineering science, commonly applied in the field.

How would a "low permeability soil layer be installed at intermediate levels within the affected portion of the LF" (DEIS 2-54) when there are already compacted MSW residues deposited above? Would the compacted MSW residues and the already placed daily cover material be removed? If so, to what site and when and how would landfilled materials be replaced? Would underlying composite liner materials be repaired or replaced at that time? If not, why not?

SEC. 2.1.8.1 TRANSFER STATIONS - MATERIALS RECOVERY FACILITIES

413 The DEIS is inadequate because it fails to discuss the issues and impacts associated with siting, construction and use of transfer stations/MRFs through which MSW residue for the proposed project must come. What are the specific locations and operational capacities (tpd) of existing and proposed transfer stations/MRFs throughout Southern California today? Where in LA County are the transfer stations/MRFs with the current permitted capacity of 20,000 tpd (DEIS 2-56)? How many transfer stations/MRFs are owned and/or operated by Western Waste - at which sites and what capacity at each site? How many additional transfer stations/MRFs would need to be sited and constructed if all three rail haul mega landfills (Amboy, Eagle Mountain, Mesquite) or four (including Chocolate Mountain also in Imperial County) become operational for landfilling of Southern California waste? How do transfer station/MRF siting criteria change for rail haul rather than truck haul of MSW residue? What are the constraints and/or obstacles to siting of the transfer stations/MRFs? What are the environmental impacts associated with urban transfer stations/MRFs and have the truck haul routes from MRFs to train loading facilities? What are the cost/ton disposal costs and energy consumption comparisons of using a few large transfer stations/MRFs vs. the costs/ton disposal costs and energy consumption associated with development of smaller community based transfer stations/MRFs? How would the siting and capacities of future transfer stations/MRFs affect the economic feasibility of the proposed rail haul project?

What are the locations and operational capacities of existing and proposed transfer stations/MRFs in Imperial County today? Are the Imperial County transfer stations/MRFs publicly owned or privately owned? What are existing or potential environmental impacts of such facilities?

The DEIS is inadequate because it fails to adequately address all reasonably foreseeable components of the proposed project. Because off-site transfer stations owned/operated by one of the partners (WWI) are needed and intended for use in conjunction with the proposed project, there should be more in depth discussion of these facilities, how they operate and their role in the proposed project. Although DEIS Fig. 2-29 indicates the waste stream and hypothetical diversion for 30% of wastes, there is no indication as to how materials will be separated for recycling and how hazardous waste will be identified and removed from materials entering the transfer station/MRFs, how they will be stored and to what site(s) they will be hauled. Is the charted 6050 tpd the typical size for a MRF, or larger or smaller than most? Why does Fig. 2-29 use a figure of 6050 tpd while text indicated that 3000 tpd is a large

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 413

The discussion of transfer stations/MRFs in this EIS/EIR is adequate. Please see responses to Comment Nos. 15 and 360.

transfer station/MRF (DEIS 2-56)?

Are there any limitations on the time of day for operations of transfer stations/MRFs and rail departures associated with the proposed project which would impact the transportation of MSW residue to the proposed project singly or in concert with the 2 other rail haul projects using SP Main line, and which would impact the operations of the proposed PM project?

414 **Hazardous waste removal compliance record of Western Waste operated transfer stations/MRFs in Southern California**

How effective are transfer stations/MRFs operated by Western Waste Industries in detecting and removing hazardous wastes from the MSW at its existing facilities in Southern California?

Newspaper articles suggest that in addition to inadvertent inclusion of HHW in MSW and the inability to remove all HHW from MSW at transfer stations/MRFs, there have been instances in which one of the partners of the proposed project knowingly engaged in intentional disposal of hazardous waste by mixing it with MSW residue prior to shipment for landfilling. Articles in the Los Angeles Times of 2/4/89 (Chen) and 4/19/89 (Rabin) describe no-contest pleas of Western Waste officials, including Western Waste vice president and manager Hacob Shirvanian, in "two criminal cases involving antitrust conspiracy charges and the illegal disposal of toxic wastes." (Chen 1989.) The 4/19/89 article provides details of the illegal mixing of hazardous wastes from two companies with MSW residue and the dumping of the mixed waste at three landfills not licensed to handle such hazardous waste. (Rabin 1989.) The landfills were Puente Hills near Hacienda Heights, BKK in West Covina, and Scholl Canyon near Glendale. "Dist. Atty. Ira Reiner described the $1 million in fines in the antitrust and illegal disposal cases as "one of the largest corporate criminal fines in California history." (Rabin 1989.) (Articles appended as exhibits A and B herein.)

Why should Imperial County or any other entity or permitting board consider authorizing a permit for a project of such a magnitude when one of the partners (Western Waste) has pleaded no contest to the charges described in the articles? How could local residents or local officials ever be sure that similar mixings of hazardous waste with MSW residue would not occur in materials dumped at the proposed site? *(Exhibit W details problems in Arkansas.)*

Sec. 2.1.8.2 AB 939 COMPLIANCE

415 AB 939 requires cities and Counties to reduce landfilled volume of MSW waste by 1995 and 50% by the year 2000. (DEIS 2-26.) It is now less than 6 months before 1995. What level of landfilled volume of annual MSW stream reduction has been achieved by each of the major cities and counties in Southern California from which applicant anticipated potential MSW residue? What level of waste stream volume reduction has been achieved by each Imperial County city and by Imperial County?

416 What year was each of the solid waste management plans (SWMPs)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 414

Please see responses to Comment Nos. 15, 216, 324, and 325. Imperial County will consider the environmental record of the Partners in deciding whether to issue permits for the proposed project.

Response to Comment No. 415

The comment does not address the adequacy or accuracy of the EIS/EIR, therefore, no response is required.

Response to Comment No. 416

Please see response to Comment No. 374. As set forth in that response, State law allows the LEA to issue a facility permit before the CIWMB approves a County's ColWMP. Under such circumstances the project must complete the "Gap Bill" process in order to obtain a facility permit.

Issuing a facility permit to the proposed Mesquite Regional Landfill before the CIWMB approves the ColWMP would not render the ColWMP a "nullity." The ColWMP consists of a number of elements, only one of which is the County-wide siting element. Even with respect to the siting element, the ColWMP would govern facility permit decisions made by the County after the CIWMB approves the ColWMP.

Imperial County's current CoSWMP was approved in October 1984. The County and various cities in the County are currently in the process of completing the various elements of the ColWMP. Imperial County anticipates presenting the complete ColWMP to the CIWMB not later that January 1996.

for Imperial County and each of the cities within Imperial County submitted to and approved by CIWMB? If all of the SWMPs for Imperial County and its cities have not yet been adopted, doesn't the application for the proposed project impermissibly attempt to impose its plan on landfill site designation processes and criteria? The County's IWMP should precede the application for a MSWLF, otherwise wouldn't such a IWMP be a nullity?

417 DEIS 2-57 states that the applicant "proposes to make the planned long-term landfilling capacity at the proposed Mesquite Regional Landfill available to cities and counties throughout Southern California in accordance with this allowance for regional facilities." The DEIS makes no statements about how, whether, or if the proposed landfill project meets the already adopted siting criteria of the County of Imperial or even identify the specific siting criteria of the Imperial County SWMP or new COIWMP. Why? Will the applicant withdraw its application if it is determined that the proposed project site does not meet the siting criteria of Imperial County?

The contractual agreements for the proposed project to accept MSW residue from any jurisdiction includes:

> a stipulation that the jurisdiction generating the MSW residue had adopted and [sic] up-to-date solid waste management plan that had been approved by the CIWMB and that the jurisdiction had made good faith efforts (as determined by the CIWMB) to comply with this plan. MSW residue would not be accepted from transfer stations/MRFs or other solid waste operations that served jurisdictions that could not meet this stipulation. (DEIS 2-57.)

If Imperial County and all of its cities have not yet met this requirement does that mean that the applicant proposed to impose its proposed project in a County without a SWMP and a County whose MSW refuse could not be accepted at a site located within the County?

418 DIES provides inadequate discussion of other waste reduction strategies with less environmental impacts to solve the MSW dilemma posed. Why? Would the operators provide funding to support waste diversion, waste recycling, and clean green waste composting centers in urban areas that are the source of MSW generation? What data or studies provide the information on waste generation and successes of waste reduction, recycling and reuse in the Southern California area?

What are the existing or proposed waste rate implementation strategies adopted by Southern California urban areas which would encourage recycling and source reduction? How successful have these been in reducing MSW generation and collection? How would the proposed project promote waste management practices (source reduction, recycling, composting, reuse) which have higher priorities under AB 939 than landfilling?

How does one certify and document that MSW residue transported from transfer stations/MRFs has complied with the goals and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 417

The existing CoSWMP does not include a specific siting element because the plan identifies adequate landfill capacity exists in the County. The CoSWMP does describe the regulatory environment that governs landfills as it existed in 1984, and this is the closest thing to a siting element. The proposed project is currently undergoing the legally-required environmental and regulatory reviews necessary to receive permits for construction and operation. Therefore, the proposed landfill will either be in compliance with the existing regulatory environment, or it will not receive permits for construction and operation. This EIS/EIR has demonstrated that the proposed site is environmentally superior to other areas in Imperial County (EIS/EIR Appendix A-3).

The Applicant has requested that the County of Imperial permit the proposed landfill. The proposed Mesquite Regional Landfill would be available for use by the County of Imperial and local cities if local authorities make the decision to use the landfill based on their waste disposal needs and the proposed project's ability to meet those needs. Please see responses to Comment Nos. 374 and 416.

Response to Comment No. 418

Section 2.4 of this EIS/EIR provides a list of project alternatives that were considered but eliminated from detailed analysis. This is consistent with the requirements of CEQA and NEPA. Section 2.4.3 contains a description of alternative waste management practices that were considered but eliminated from further analysis. As the description indicates, AB 939 encourages local governments to promote waste management practices, including environmentally-safe land disposal. The proposed Mesquite Regional Landfill would be developed to provide an environmentally-safe land disposal option for use at the discretion of Southern California counties and cities after other waste management practices had been applied to reduce local county waste streams. Therefore, it was determined that alternative waste management practices are anticipated by California law to coexist with environmentally-safe landfilling. There is no proposal or requirement for the Applicant to provide funding to support waste diversion, waste recycling, or green waste composting.

As described in Section 2.1.8, the Applicant would require the jurisdiction generating the MSW residue has an adopted and up-to-date solid waste

Response to Comment No. 418 (Cont'd)

management plan that had been approved by the CIWMB and that the jurisdiction had made good faith efforts (as determined by the CIWMB) to comply with this plan. The County would verify this by periodically inspecting the Applicant's records. Please see response to Comment No. 374 for a discussion of integrated waste management plans. Please see Section 1.1.3 for information on recycling by Southern California jurisdictions. The proposed landfill would help local jurisdictions meet AB 939 goals by providing landfill space only to jurisdictions that meet the goals or are making good faith efforts as described above. By definition MSW residue can contain small quantities of HHW.

In addition, State law provides:

> "No city or county shall export solid waste to any other jurisdiction unless the exporting city or county has, within one year following the date specified in Section 41791 or a later date established or permitted by the [CIWMB], an approved city or county household hazardous waste element and a source reduction and recycling element which have both been implemented, or have submitted a [CoIWMP], and is in compliance with it, provided, however, that, until one year following the date specified in Section 41791 or a later date established by the [CIWMB] nothing herein shall be construed as prohibiting the export of solid waste."
>
> (Pub. Resources Code, § 41903.)

Thus, a jurisdiction may not export solid waste unless it has adopted and implemented plans designed to meet the diversion requirements established by AB 939. This limitation provides further assurance, in addition to the provisions to be included contracts with exporting jurisdictions, that the project will be consistent with the diversion requirements in AB 939.

criteria established by AB 939? What are existing volumes of MSW collected as compared with collection prior to AB 939?

How will the proposed project and operator help communities/counties achieve their AB 939 goals for waste stream reduction and reduce the volume of materials landfilled by 50% by the year 2000? How will the Applicant/operator of the proposed LF ensure that all household and small quantity generator hazardous waste is separately collected at the community level and then excluded from MSW residue landfilled?

SEC. 2.1.9 HAZARDOUS MATERIALS MANAGEMENT

419 DEIS Sec. 2.1.9 is inadequate because it fails to address all the specific concerns of CIWMB (6/18/92 letter, Appendix A) and fails to provide the requested information about the proposed HHW management plan. Have the Household Hazardous Waste (HHW) management elements for the integrated waste management plans (DEIS 2-59) for the County of Imperial and its cities been approved by CIWMB? If so, when? How effective have these plans and education activities in Imperial County and its cities been in reducing the amount of HHW disposed of in normal household trash? How widely have these HHW plans been implemented throughout Imperial County, particularly in rural Imperial County where there is no household waste collection?

In the DEIS cited study of HHW, is it 0.31 to 0.52 % of the MSW waste stream in Marin County in Northern California (DEIS 2-59) that is hazardous waste as a percent by weight or a percent by volume? How different (if at all) is the percentage of HHW in MSW residue from southern California, particularly more urbanized and industrialized areas of Southern California?

How effective have the plans to ensure that MSW from business which are small quantity generators (SQGs) of hazardous waste been in reducing hazardous wastes from SQG businesses? What was the pre AB 939 tonnage (and percentage of waste by tonnage and/or volume) of hazardous waste from California SQGs which ended up in MSW landfills? Has the potential for assessment of penalties been successful in deterring SQGs from disposing of hazardous waste to MSW landfills? (See exhibits A, B for past Western Waste Industries disposal of hazardous waste in MSWLFs in Southern California.)

If voluntary compliance is not achieved and wastes hauled or tracked to transfer stations/MRFs is not accepted, how is rejected waste handled and disposed of?

How will transfer station/MRF personnel be able to identify "suspicious wastes" including HHWs in waste materials which have been collected from household or commercial sites including MSW from "trash compactors"? What actions will be taken to eliminate HHW from household compacted trash? How will HHW compacted trash be handled when/if it is observed at transfer stations/MRFs? How and where will it be stored and transported? How long will it be stored on site?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 419

This Final EIS/EIR adequately responds to the CIWMB's needs (Please see responses to Comment Nos. 1 to 17). Household hazardous waste management elements for the integrated waste management plans for the County of Imperial and its cities are not applicable to the analysis of potential environmental impacts of the proposed Mesquite Regional Landfill, because Imperial County wastes may never be disposed at the proposed site and because future disposal of Imperial County wastes would be subject to future environmental review.

The household hazardous waste distribution shown in Table 2-4 of the Draft EIS/EIR shows hazardous waste as a percent by weight. This is important because most of the household hazardous wastes that are listed in the table are typically present in very small amounts inside of empty or mostly empty containers. As a result, the actual amount of household hazardous waste is probably a lot less than the weight relationship presented in the table. To be conservative, however, this information was used as a maximum potential amount of household hazardous waste.

Hazardous wastes that may be present in MSW when it is collected from homes and businesses (including SQGs) is expected to be removed at transfer stations/MRFs as part of the sorting procedures that would occur at these facilities. Transfer stations/MRFs must receive permits from the CIWMB before they can operate. The transfer station permits contain detailed requirements for their operation including training for personnel and the types of hazardous waste screening procedures that must be employed. As an additional protective measure, working face personnel at the proposed Mesquite Regional Landfill would be trained to spot hazardous materials. A full discussion of hazardous material procedures is contained in Section 4.1.12 of the Draft EIS/EIR. (Information on HHW generated in Southern California is provided in responses to Comment Nos. 325 and 359.) Compaction would have a minimal effect on the ability of the landfill employees to recognize hazardous materials because the MSW residue would break apart as it is dumped from the container and as it is spread at the working face.

What is the typical (or range of) frequency for "random load checking" at CIWMB approved transfer stations/MRFs in different waste source regions of Southern California? Are "load checkers" given special training for their task? With what kind of devices and instruments will they be equipped? How will compacted trash bundles be broken apart? What worker safety training and procedures will be mandated? Will dosimeters be required to detect possible radiation exposure of inspectors/workers?

Would the MSW residue be compacted before transport by rail haul to the proposed LF site? How would compaction of MSW residue for the purpose of rail haul affect the ability for hazardous waste detection and identification at the proposed LF site?

SEC. 2.1.10 COMPLIANCE MONITORING

420 Why wasn't the Mitigation Monitoring and Reporting Program (MMRP) made available and submitted for public review and comment at the time of the DEIS so the public could have a full 90 days for review and comment rather than the shorter time associated with the final EIS (DEIS 2-61) under NEPA regulations? Why was the DEIS prematurely released for public review before preparation of a draft MMRP? The DEIS is inadequate because it fails to include the details of the unreleased MMRP during the public comment period for the DEIS. Accordingly, the MMRP should be included in the Revised Draft EIS and released for a full 90 day comment period.

Why should the monitoring be done by employees of the Applicant rather than independent County staff not on the payroll of the applicant? What independent third party monitoring will be done and with what frequency? See discussion elsewhere on the operating history of WWI in Southern California and Arkansas.

421 Citizens' Oversight Committee: Will the MMRP establish a citizens' oversight committee funded and empowered to monitor implementation of all mitigation measures, project conditions of approval, and operating permit terms and conditions? Will the citizens' oversight committee be empowered to legally require appropriate remedial action in the event problems are identified? Will the citizens' oversight committee be made up of individuals who have no conflict of interest? Will such committee personnel be insured against accidents?

Will there be provisions for random unannounced inspections to be made by citizens' oversight committee and/or governmental agencies charged with preserving the health and safety of state residents and the environment? Will there be guarantees that raw data monitored and analyzed by an independent government agency and any record keeping requirements under Subtitle D be available for public review upon request? Funds for these inspections should be derived from a tax based on the tipping fee.

Sec. 2.1.12 LANDFILL RELATED RAILROAD FACILITIES

422 Does the applicant propose to use permanent or removable roof cars? The DEIS 2-62 fails to state. How is it possible that the applicant has been considering this proposal for more than three

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 420

Please see response to Comment No 13. Because it is not required that the MMRP be circulated with the Draft EIS/EIR, the Draft EIS/EIR is adequate and will not be recirculated for an additional public review period. The Mitigation Monitoring and Reporting Program for this project is an exact statement of the mitigation measures identified in this EIS/EIR and required to be implemented by the BLM and County of Imperial. Monitoring would be accomplished by many different entities including the Applicant, County of Imperial, State of California, and Federal Government. Any monitoring conducted by the Applicant would be subject to confirmation by the County or other regulatory agency. Please see response to Comment No. 216.

Response to Comment No. 421

A citizen's oversight committee is not a required mitigation measure; therefore, a citizen's oversight committee will not be included in the MMRP. All monitoring data would be available for public review as required by NEPA, CEQA, and other project-related regulations; and monitoring would be paid for by the Applicant as established by this EIS/EIR and subsequent permits.

Response to Comment No. 422

At this time, the Applicant has not determined if permanent or removable top containers would be used. This detail was not necessary to complete the environmental review presented in this EIS/EIR.

years and has as of the time of release of DEIS failed to determine or reveal the actual means intended to implement the proposed project?

423 Are communication and/or power lines intended to be overhead or buried (DEIS 2-64)? Why was the DEIS released for public preview prior to the design of the communication or power line configuration so that information could be included in the DEIS? Will a location diagram for all communication and power line runs with KV ratings at the project site be included in a revised EIS/EIR?

SEC. 2.1.13 FENCING

424 What are the undisclosed BLM specifications for tortoise fencing? To what depth will fencing be buried to prevent tortoises and other burrowing animals from entering the proposed LF site? Is the 6 to 8 foot industrial fencing with porcupine wire (DEIS 2-66) primarily intended to keep out humans which might trespass? If not, what animals is a fence of that height with porcupine fencing intended to deter? Is this fencing intended as litter control? If so how would fencing of such low height prevent transport of litter and debris during periods of high winds and dust devils on site? Is the fencing of Sec. 2.1.13 the same height as the "portable litter fence" (DEIS 2-25) depicted on the south and east sides of the operating area Fig 2-12 (DEIS 2-21)? DEIS project description is inadequate because litter fence and tortoise proof fencing plans are not available for public review and comment. Why wasn't the litter fence design included in the DEIS?

Sec. 2.1.14 WATER AVAILABILITY AND USES/POTENTIAL USAGE

Water in project vicinity is suitable or potentially suitable for municipal and domestic supply according to SWRCB

425 Water for the proposed project including potable water would come from the "existing Mesquite mine Well Field located approximately three miles south of the proposed site." (DEIS 2-66.) "Potable water would be obtained from the water wells. The well water would be treated and softened at an on-site well-water treatment facility dedicated to the production of potable water." (DEIS 2-71.) Now that the Mesquite Mine has been sold, who owns the well field and what contractual rights extend to the proposed LF project and what rights to the mine owner/operator?

In 1984 EPA issued the Ground-water Protection Strategy, which established the concept of differential protection of ground water depending on its resource value. Accordingly, three classes of ground water were identified. Class I ground waters are defined as special ground waters that are highly vulnerable to contamination and that are either irreplaceable sources of drinking water or are ecologically vital. Class II groundwaters are defined as current and potential sources of drinking water and those having other beneficial uses. Class III ground waters are defined as heavily saline ground water or ground water otherwise contaminated beyond the level allowing cleanup through methods commonly used by public

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 423

Both above- and below-ground communication and/or power lines were considered in preparing this EIS/EIR. Either configuration would be constructed within a disturbed right-of-way. Above-ground lines were specifically addressed in this EIS/EIR because they would result in worst-case environmental effects. Specifically, above-ground lines would have the potential to be used for raptor/raven perching and to create visual impacts.

Response to Comment No. 424

Please see responses to Comment Nos. 336 and 381. The fence would deter trespassing and raven perching. It would also aid in litter control.

Response to Comment No. 425

Please see response to Comment No. 63.

water supply treatments. (US EPA 1988:33324) also (US EPA 1991:50995.)

426 Consequently, based on Appendix B Tables 3.5 and 3.6, DEIS 2-71, and US EPA's 1991 MSWLF criteria, the groundwater underlying the proposed project site and at the Mesquite Mine Well Field is a US EPA Class II groundwater requiring protection for present and potential beneficial uses including for potable use.

Additionally, the groundwater resources of the subbasin and Amos-Ogilby basin are "suitable or potentially suitable for municipal or domestic water supply" according to SWRCB Resolution #88-63 because the TDS is less than 3,000 mg/l, it can be treated to potable, and is capable of yielding at least 200 gallons/day from a well. (SWRCB 1988; Coulter 6/14/94.)

Why do Tables 3.5 and 3.6 in Appendix B indicate that a TDS of 500 mg/l is the recommended Secondary drinking water standards when the MCL standard used by the Imperial County Environmental Health Services Dept. states that 1000 mg/l is considered potable (Johnston 1994) and IID delivered Colorado River water is generally exceeds 700 mg/l and was 879 at the Imperial Dam in 1975 (FEIS for Imperial County General Plan Update p. III-205).

427 What is meant by the phrase "disposed of as appropriate" with reference to solids settling at the bottom of the evaporation pond (DEIS 2-71)? Specifically, where and how will these materials be disposed of and with what frequency?

SEC. 2.1.17 LANDFILL CLOSURE

428 What is the active intended period for filling of each landfill cell? What is the projected segment or cell closure date for each of the 43 cells depicted in Fig 2.9? What is the projected date for closure of the first filled landfill segment? Why does the DEIS fail to include any meaningful discussion or details of landfill closure activities including schedules for final cover on both surface and slopes, hydraulic conductivity or soils to be used as cover, soil requirements to support vegetative cover, type of vegetative cover intended, post-closure settling, cap installation, maintenance, cover inspection, monitoring and cap replacement schedule and/or criteria triggering cap replacement; final leachate collection and monitoring system and replacement schedule; LFG management and control systems, monitoring, monitoring,remediation and replacement schedule? What are details of the cover system (DEIS 2-74)? Will overburden or ore residues be crushed before use as a cover material? Will cover soil be coarse or fine? How will cover system FML and soil choices impact frequency of replacement or potential future post-closure uses?

Was the DEIS released for public and agency review prematurely before the applicant/consultant completed preparation of this important information? Alternatively, did the applicant/consultant fail to include this information because the present applicants do not intend to actually ever be in a position to initiate and perform any of those closure and post-closure maintenance,

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 426

Please see response to Comment No. 136.

Response to Comment No. 427

Please see response to Comment No. 6.

Response to Comment No. 428

The commentor asks for a series of details concerning landfill closure activities and design that are addressed in various places throughout the Draft EIS/EIR at the level of detail required to evaluate potential environmental impacts. The information provided in the Draft EIS/EIR, as supplemented by the response to public comments, provides a similar level of detail to that provided in the Campo Landfill EIS. Given the 100-year life of the proposed landfill, it is not reasonable to try to predict what closure requirements, including monitoring and maintenance schedules, will be when the proposed landfill is closed. The level of detail presented in this EIS/EIR is adequate. Additional details will be considered during the permitting process. The following is provided to amplify, as appropriate, on the discussions already contained in the Draft EIS/EIR.

As shown in the Draft EIS/EIR Figure 2-9, the landfill would be divided into 43 segments for purposes of construction sequencing and environmental controls and monitoring. The time period for filling of each segment would depend upon the rate of receipt of MSW residue. The Draft EIS/EIR analyzes the maximum rate of filling in order to evaluate the potential maximum environmental impacts. The actual rate of filling could be less if the rate of receipt of MSW residue is less than this maximum scenario. A description of potential closure dates for each segment would not be meaningful for purposes of evaluating environmental impacts. It is not expected that crushing of overburden material would be required. Cover soil would be fine grained. The FML and soil cover would be permanent components of the proposed landfill cover that would not be replaced.

The final top cover would consist of a 2-foot foundation layer, an FML, and 2 feet of cover on top of that. The final sideslope cover would consist of at least 7 feet of compacted soil, which would constitute the side berms which are developed for construction of the landfill. The drainage system

monitoring and remediation, and replacement actions at the proposed landfill site? Why are no specific details or information included in the DEIS?

Much information was included in the DEIS and FEIS for the proposed MSWLF on the Campo Indian Reservation in San Diego County. Does the Bureau of Indican Affairs hold preparers of DEIS documents to a higher standard than Bureau of Land Management, when both are within the Department of Interior? If BIA standards are higher, what is the reason for the difference in standards for preparation of NEPA documents for agencies within the same federal department?

DEIS Sec. 2.1.17 absence of meaningful discussion of "Landfill closure" renders the DEIS grossly and woefully inadequate. How can the public comment on the adequacy and discuss potential problems with LF closure practices, monitoring, maintenance, remediation and component replacement issues and habitat restoration when the DEIS fails to provide any information other than make vague references to possible unspecified actions at some vague indefinite future time with potentially different regulations?

Based on the currently applicable federal and state regulations adopted or anticipated, currently applicable best materials and system designs available today, what are the details and specifications of the final LF cap/cover system design(DEIS 2-74)? What are "perimeter stability berms" (DEIS 2-74)?

Why does DEIS 2-74 indicate the thickness and composition of LF closure slope materials, but make no mention of thickness or composition of final cover liner soils? What is the composition and thickness of any potential foundation layer of soil overlying compacted MSW residue, FML liner and geotextile and vegetative soil and/or overburden cover and drainage layer for final LF cover closure on unsloped surfaces at the proposed site? What are the separation distances between FML liner and geotextiles of the closure cover layers?

What are the design features or characteristics of the "intermediate drainage ditches" (DEIS 2-74) which would be employed to prevent ponding and moisture infiltration in the depressed or low-lying areas designated in DEIS Fig. 2-11 (p.2-19) as "erosion protection" at the base of slope sides and control erosion from surface runoff? What is the proposed design for continued infiltration monitoring, leachate monitoring, and LFG generation and monitoring during LF segment closure and post-closure monitoring and maintenance? Will there be a routine maintenance and replacement schedule for plastic components likely to deteriorate through time? How frequently will monitoring of leachate, groundwater quality LFG be performed during the decades and centuries of post-closure maintenance? What are the manufacturers' guarantees for component materials of the LF closure cover and monitoring systems?

Why doesn't the DEIS (2-74) specify the preferred LFG collection system design for LF closure at this time? How will the

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Response to Comment No. 428 (Cont'd)

for the landfill that would be employed during closure and maintained during the post-closure period is described in the Draft EIS/EIR in Section 2.1.4.2.

The LFG control system that would be installed as part of regular landfilling operations is the same system that would control LFG during the postclosure period. This system is described in Section 2.1.6 of the Draft EIS/EIR and the closure process is described in Section 2.1.17 of the Draft EIS/EIR. Final cover placement schedules would depend upon the rate of receipt of MSW residue. As indicated above, the closure schedules are not required for a consideration of environmental impacts. Schedules for post-closure monitoring of the integrity and effectiveness of landfill cover would be provided to the Integrated Waste Management Board as part of the Closure and Post-closure Plan. Again, this information is not required to consider the environmental impacts of the proposed project. Generally, however, monitoring of the final cover, and other environmental monitoring systems during post-closure is expected to occur quarterly, with a yearly audit and report. Final cover and drainage structures, would also be checked after any significant rain event.

Ground water monitoring wells would be replaced if they no longer perform effectively. However, based on experience with the nearby Mesquite Mine, there is no reason to think that any wells would stop performing effectively. The RWQCB has indicated that it will have a third party reviewer that would be on-site during construction of the liner and the underlying vadose monitoring wells. This EIS/EIR and these responses to public comments fully disclose the controversy regarding landfill practices. The fact that controversy exists does not make an EIS/EIR inadequate (please see response to Comment No 270). Please also see response to Comment No. 110.

high temperatures of this portion of the desert affect the long term integrity of closure systems for LFG and leachate? The failures of the composite liner systems and closure cover liners and post-closure perpetual maintenance of liner integrity are discussed in Lee & Jones-Lee 1992. Why is discussion of controversy surrounding such issues not fully disclosed in DEIS and its appendices?

What are the details of placement and monitoring schedules for monitoring the integrity and effectiveness of the landfill cover to measure entrance of moisture into the closed portions of the LF? How and by whom will differential settling of compacted MSW residues, desiccation cracking and brittle cracking of closure material layers overlying and underlying the compacted MSW residues be monitored through the decades and centuries after LF closure?

Will groundwater monitoring wells and vadose monitoring wells be replaced on a routine basis after LF closure and prior to closure of the entire proposed project? What is the long-term estimated cost adjusted for inflation for maintenance of all monitoring systems and wells from inception of the proposed project through 100 years post-closure? Who will be responsible for post-closure maintenance and monitoring? Will there be third party inspections and review?

429 **Perpetual fencing for exclusion of burrowing wildlife?** Will perpetual fencing be maintained to prevent the entrance of burrowing wildlife including rodents, larger mammals and desert tortoises from returning and repopulating portions of the closed LF? How would the referenced "recreation" uses on the closed LF potentially affect the closure surfaces, drainage, monitoring and/or including differential settling of compacted MSW residues, access to site by burrowing animals, and thereby influence the integrity of the FML and geotextile components of the LF closure cover? What would prevent vegetative roots or moisture from penetrating the LF cover material and cover liner and thereby allowing entrance of moisture to the MSW residue? Any growth or activities which might increase the potential for moisture to enter the landfill would also result in additional generation of leachate and LFG. What, if any, compatible uses are there for such a situation after LF closure? Who would be responsible for liabilities incurred through recreational uses?

430 **Alternatively, repopulation of site by wildlife will require revegetation of site:** Any expectation of wildlife repopulation of the proposed LF site after operations have ceased and closure cover and cover soil is in place would necessitate habitat restoration and revegetation as required by the Imperial County General Plan Update Conservation/Open Space Element (GPU C/OSE) policy for development in areas contiguous with undisturbed wildlife habitat (GPU C/OSE:49-51) and mitigation measures for potential impacts to the proposed project identified significant biological resources as required by the Final Program EIR for the Imperial County's General Plan Update (GPU FPEIR: II-135 to III-138).

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Response to Comment No. 429

The site would be fenced throughout the 100-year life of the landfill and during the post-closure monitoring period. Based on the depth of the final cover (7 feet on sideslopes and 4 feet, including an FML, on top areas), impacts from burrowing animals would not be expected to occur.

Please see response to Comment No. 151 for a discussion of on-site revegetation. It is not expected that the surface of the landfill would become vegetated, given the arid conditions at the site.

Recreational uses are not known at this time, and are only suggested as possible activities that would be identified approximately 100 years from now. Potential impacts would require environmental review at that time. It is expected that the property owner would be liable for any subsequent uses of the proposed site.

Response to Comment No. 430

The Revegetation Policy from the Imperial County General Plan Update is specifically focused on revegetation to control erosion. Erosion in this area of the desert is controlled by the rocky desert surface, not by plants. Therefore, revegetation for erosion control is not required. The Revegetation Program described in the Imperial County General Plan Update is tied to the loss of sensitive habitat. Figure 10 of the Imperial County General Plan EIR shows that the proposed site contains desert scrub/succulent scrub, which is identified as a sensitive habitat. Therefore, the proposed site would be revegetated as described in response to Comment No. 151. This has been added as a mitigation measure in Section 4.1.3.3 of this EIS/EIR.

431 DEIS failure to require revegetation is inconsistent with Imperial County's General Plan and its associated FPEIR, but County revegetation plan may be unrealistic.

The NOP stated that prior studies indicated return of precipitation run-off and discharge flows to the same area was not required to support existing vegetation in the proposed project vicinity. "Instead, existing vegetative growth is primarily supported by moisture from local precipitation." (Appendix A, NOP p.4-19.) Why does the DEIS not plan for "comprehensive revegetation" (DEIS 2-74)? What is meant by "prevent[ing] the establishment of any vegetation that would impact the function and reliability of the surface liner" (DEIS 2-74)? How would this be done?

Was habitat restoration/revegetation not included because post-closure escaping LFG and VOCs would kill plant roots (Lee & Jones-Lee 1994b:6) or because plant roots might penetrate the cover liner? Since comprehensive revegetation of the proposed LF site is not proposed (DEIS 2-74), what measures will be taken to reduce, minimize or prevent blowing away of finer grained cover materials on the unsloped surfaces? Would "coarse, resistent overburden materials" also be used on unsloped surfaces? What is the size/dimensions of this material, and how much would be required to cover all sloped surfaces and the unsloped surfaces? From what source will these cover materials be derived? Are these the Applicant's proposals or those of a professional?

Why does the DEIS (2-74) fail to require habitat restoration and revegetation of the proposed project site when Imperial County requires "resoiling and revegetation" of sand and gravel pit operations within the County such as included in the 12/93 "Mining and Reclamation Plan for Granite Construction Company White Pit"? If no "comprehensive revegetation" is proposed to be attempted for such a massive surface disturbance as the proposed 2290 acre footprint LF, what justification is there for Imperial County to impose and require habitat restoration and revegetation of other disturbed sites in Imperial County? Why aren't alternative reasonable on-site mitigation measures for habitat restoration of the 2290 acre footprint and 4245 acre site detailed? If the habitat cannot be restored and revegetation implemented, the proposed LF should not be constructed at the proposed site. Alternatively other technologies should be considered so that the site will not remain sterile or barren forever.

SEC. 2.1.18 FINANCIAL ASSURANCE

Where are the details of the "written cost estimates for landfill closure, post closure care, and corrective actions" (DEIS 2-74) as detailed in US EPA's Final Rule for MSWLFs? Why isn't this information included in the DEIS for public review and comment at this time?

If changing market conditions, operational costs, disposal technologies, and waste generation change the proposed project life-span or project or economic viability, what up-front funding provisions are available to cover the full costs of premature closure, project abandonment and perpetual maintenance and

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Response to Comment No. 431

Please see response to Comment No. 151 for a discussion of revegetation. During operations, closure, and post closure care, the Applicant would prevent the establishment of plants that would impact the landfill cover by either manual or other methods approved by the County of Imperial.

Erosion from wind and water would be controlled by applying the course material found in the overburden piles to the landfill outer surfaces. Please see response to Comment No. 430.

There would be hundreds of millions of tons of overburden material available for use in landfill construction. These resources would include more than enough coarse (several inches to several feet in diameter) material to cover the entire surface of the landfill, sloped and unsloped areas. No import of material for this purpose would be required.

Revegetation is difficult in the harsh desert environment. Therefore, the coarse material would be placed on the surface of the landfill to control erosion.

monitoring?

432 Which of the "11 methods for providing financial assurance" (DEIS 2-75) does the applicant for the proposed LF project intend to provide? Why is there no serious discussion of the importance of trust funds or other financial instruments which would grow over the years to provide financial assurances that funding would be available for (a) closure; (b) post-closure maintenance into perpetuity; (c) corrective action or remediation because of the possibility of unanticipated release of leachate or LFG into the environment.. The importance of trust funds cannot be underestimated in the event that any of the partners or operator becomes insolvent or bankrupt at any time during the 100 year operating life or in perpetuity after closure. Why hasn't this information been made available for public review and comment at this time? Surely the Applicant has known of this requirement since publication of the US EPA's proposed rule in August 1988.

Financial assurance issues have emerged as a major part of owning and operating MSWLFs both now and into the future. The availability of adequate financial reserves to resolve all conceivable problems in addition to routine maintenance, replacement of component parts or systems, closure and perpetual post-closure care and maintenance is a major public concern.

What are the financial resources of each of the three partners for the proposed project? What is the compliance record and history of relevant operating violations and/or environmental accidents for each of the three partners? What is the history of problems at landfill sites to which Western Waste hauls MSW at its other sites in New Boston, Arkansas, Monroe County, Arkansas, Conroe, Texas, Florida and El Sobrante in Riverside County, CA?

Arid Operations has never operated a large MSW landfill before (AOI's Filler pointed out a small, inert LF at the mine site), so how can the public be assured that it would do any better than Western Waste in operating any MSWLF?

What are the estimated full costs for closure, replacement of damaged or deteriorated liner of LCRS or LFG system components, cover replacement, monitoring, corrective actions, and post-closure maintenance in perpetuity? What amount of funds would need to be set aside in trust funds administered by a third party authority to insure adequate funding to meet future costs?

Sec. 2.2 ALTERNATIVES TO PROPOSED PROJECT: DEIS discussion of alternatives to proposed project is inadequate and does not satisfy NEPA requirements identified in DEIS introduction and DEIS 2-96. The DEIS introduction states that:

> The national Environmental Policy Act (NEPA) not only requires that an Environmental Impact Statement (EIS) describe a range of alternatives, but an EIS must:
> "rigorously explore and objectively evaluate all reasonable alternatives" 40 Code of Federal Regulations (CFR) Sec. 1502.14. (DEIS 1-6; emphasis

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Response to Comment No. 432

The financial assurance details are required as part of the Solid Waste Facilities Permit and Waste Discharge Requirements, and are not required for the EIS/EIR analysis. These permits will follow the EIS/EIR process if the proposed landfill is approved by the BLM and County. The Applicant would be required to provide the financial assurances required by law as described in Section 2.1.18 of this EIS/EIR; therefore, no significant impacts would be expected. The requested cost estimates of closure and post closure care and corrective action along with the details of the financial assurance to be provided will be prepared and submitted for public review as required by law.

WWI is publicly traded on the New York Stock Exchange as are the parent corporations of the other two partners. The requested information is available from the Securities and Exchange Commission. Please see response to Comment No. 216.

Arid Operations would be responsible for the construction and operation of the proposed landfill. Arid Operations does not have experience operating a Class III landfill; however, they have a successful record operating the Mesquite Mine, which included the following:

- Large volume material handling, in excess of 100,000 tons per day of rock as compared to a maximum of 20,000 tons per day with the proposed landfill;
- Construction and operation of lined heap leach pads and monitoring systems, which are the same containment and environmental monitoring systems only recently required for MSW landfills;
- Monitoring and protection of all elements of the human environment, including threatened species, storm water control, and air quality protection at the same site; and
- Managed a large industrial workforce of similar size and occupations.

The Applicant will provide the legally mandated financial assurances according to a method allowed by law or they will not receive a permit to operate the proposed landfill. Please see responses to Comment Nos. 201 and 428.

added.)

As identified in the ES, the DEIS includes only a very limited list of alternatives located in Imperial County in addition to the "No Action Alternative". These include Alternative I - Smaller Landfill Footprint at the proposed site (DEIS S-9, Fig. S-7); Alternative II- Reduced Daily Volumes received at the proposed site (DEIS S-9); Alternative III - Alternative Mesquite Regional Landfill Site 3.75 miles SE of Glamis in Imperial County (DEIS S-9, 10, Fig. S-8); Alternative IV - Larger Project Size at proposed Imperial County site (DEIS S-10, 17, Fig. S-9) and DEIS 2-1).

433 Conspicuously missing from the NEPA required "rigorous exploration and objective evaluation of all reasonable alternatives" to the proposed project is any serious or meaningful discussion of the other "Potential Regional Landfills" identified on Fig. 2-39 (DEIS 2-93) and in the outdated Table 2-6 based on 6 year old 1988 information from SCAG (DEIS 2-95). Table 2-6 is misleading because it fails to include <u>all</u> of the currently proposed remote waste by rail projects now under consideration to serve Southern California. Further it fails to include the current status of other rail haul projects in varying stages of environmental review and/or permitting in other Southern California counties, in Arizona, and in East Carbon, Utah to receive Southern California MSW residue.

DIES discussion is inadequate because both Fig. 2-39 and Table 2-6 fail to even include (a) the Franconia, Arizona WMX site which is already fully permitted to take California waste; (b) the already operating 20,000 tpd Union Pacific rail haul site in East Carbon, Utah; and (c) the BIA approved 3000 tpd Mid-American Waste Systems rail haul landfill on the Campo Indian Reservation in San Diego County. Regardless of what Project Applicant or others think of the relative merits of these other regional and rail haul landfill sites, they should be included as alternatives to the proposed project because each of the other rail haul projects intends to import MSW residue from Southern California. Why are these sites omitted from both the figure and table when existence and proposed purposes of such sites is common public information? Why wouldn't any of the proposed regional landfills or permitted regional rail haul landfills individually or cumulatively be reasonable and/or feasible alternatives to the proposed project and capable of fulfilling the "purpose of the proposed regional landfill ... to dispose of MSW that has undergone source reduction and recycling (MSW residue) delivered to [a] site by rail haul from Southern California communities" (DEIS 2-1)? In fact, wouldn't several of the other proposed or permitted regional landfill sites be closer to the communities generating the waste? What is the milage of various rail haul LF sites from Southern California urban areas?

DIES discussion of all reasonable alternatives is inadequate because the DEIS should include detailed discussion of each of these alternatives which could serve the same purpose of providing a Class III landfill to receive MSW residue from Southern California as indicated in the text of DEIS Introduction (p.1-1).

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<u>Response to Comment No. 433</u>

The analysis of alternatives presented in this EIS/EIR meets the requirements of NEPA. The Executive Summary identifies that a number of infeasible alternatives were identified that were eliminated from further consideration as described in EIS/EIR Section 2.4. Please see responses to Comment Nos. 164, 172, 181, 271,313,314, and 315. EIS/EIR Section 2.4.1.1 states that all of the out-of-county regional landfills described in the 1988 SCAG report and the 1994 CIWMB Rail Haul Status Report were eliminated from detailed consideration by application of a key Imperial County objective, which is to build Imperial County's economy by approving an environmentally and economically sound project that provides long-term employment opportunities. Application of this key Imperial County objective also eliminates from detailed consideration all other regional landfills outside of Imperial County, including landfills in Arizona, Utah, Washington, and other counties in California. Approval of any out-of-county landfill would not meet any of Imperial County's objectives. With the exception of the Eagle Mountain Regional Landfill Project, which is addressed as producing cumulative impacts, none of these out-of-county landfills would result in the identification and preservation, through the exchange process, lands in the Santa Rosa Mountains containing important natural resource values and lands in the Chuckwalla Bench that are capable of providing high quality habitat for sensitive species. Therefore, these out-of-county regional landfills are not reasonable alternatives to the proposed project or Proposed Action. Each of the proposed regional rail haul landfills in Southern California are within approximately 200 miles of downtown Los Angeles, by rail.

However, the purpose of making money for the project partners and other "applicant objectives" listed (DEIS 1-6) would not be achieved by the operation of any of the other alternatives (potential regional landfills owned/operated by others) to the proposed project. DEIS cites no NEPA provision that review of alternatives may permissibly be limited to only those sites which are or could be owned by the project applicant. If such a NEPA provision exists, what is its identity and text? Indeed, lands for both the proposed project and Alternative III (alternative site) include public lands.

CEQA Alternatives discussion requires description of a "No Action" alternative in addition to "a range of reasonable alternatives to the project, or to the location of the project, which would reasonably attain the basic objectives of the project, and evaluate the comparative merits of the alternatives" (DEIS 2-75). BLM's NEPA handbook requires that the EIS "'[d]escribe the no-action alternative and all reasonable alternatives, including related monitoring requirements, to the same level of detail as the proposed action.'" (DEIS 2-75.) NEPA also requires that the EIS address "'how each alternative, with the exception of the no-action alternative, will generally accomplish the purpose and need for the action...'" (DEIS 2-75, emphasis added.) 40 CFR 1502.14 further requires that an EIS:

> (a) Rigorously explore and objectively evaluate all reasonable alternatives, ...
> (b) Devote substantial treatment to each alternative considered in detail, including the proposed action, ...
> (c) Include reasonable alternatives not within the jurisdiction of the lead agency. (DEIS 2-96.)
>
> The CEQA Guidelines 15126(d)(3) requires that:
> discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or be more costly. (CEQA Guidelines Sec. 15126(d)(3).)

Alternative sites discussion is inadequate and incomplete

434 The DEIS is inadequate because it fails to meet all of the above criteria and to provide the NEPA and CEQA mandated alternatives discussion of ALL REASONABLE FEASIBLE alternatives to the degree indicated whether or not the alternatives are located in Imperial County and whether or not any other proposed regional landfills are owned and/or operated by any of the partners for the proposed project.

The DEIS discussion of alternatives is woefully inadequate because (a) it fails to even list or include all proposed regional mega-landfill rail-haul project proposals in Riverside, San Bernardino, San Diego and Imperial Counties; (b) it fails to discuss the current capacity and expansion status of other landfills owned/operated by Western Waste Industries in other Southern California counties; (c) it provided no meaningful

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Response to Comment No. 434

Please see responses to Comment Nos. 164, 172, 181, 271, 313, 314, 315, and 433. Wet Cell technology is not regularly accepted by permitting agencies and therefore is not considered a reasonable alternative to the proposed project at this time. The LFG enhancement pilot program described in this EIS/EIR is a form of Wet Cell technology. Based on the results of the pilot program, the Applicant may decide to implement LFG enhancement throughout the proposed landfill. The feasibility of such a future program cannot be known until such time as the pilot program has been completed. As described in Table 1-2, full scale implementation of LFG enhancement may require future environmental review. It would certainly require modifications and/or new permits to be issued for the operation of the proposed landfill.

It is not necessary for regional landfills to operate at 20,000 tons per day to be economically viable. The Applicant has indicated that a maximum rate below 12,000 tons of MSW-residue per day would not justify the large capital expenditures necessary to construct and operate the proposed Mesquite Regional Landfill (Draft EIS/EIR page 2-77); however, the Campo Solid Waste Management Project in San Diego County proposes to operate at 3,000 tons per day. Therefore, it is likely that three regional landfills would be economically viable at 30,000 tons per day total MSW residue. It may be necessary for MSW-residue to be shipped in from out-of-Southern California or out-of-state to support some unknown number of regional landfills permitted and operating in Southern California. This scenario is very speculative and therefore, is not addressed in this EIS/EIR. MSW shipments from outside Southern California are not proposed by the Applicant, but the future possibility of MSW residue shipments from areas other than Southern California is disclosed to the public on page 1-1 last paragraph of the first column.

discussion of the No Action Alternative which includes reduction, reuse, recycling, product take-back for refurbishing and reuse and landfills closer to source of MSW generation; and (d) it fails to consider alternative design technologies advocated by engineers for "Wet Cell" landfills which use water to accelerate decomposition and more rapidly removes toxics from MSW residues and leachate. However, DEIS includes a similar proposal for addition of moisture to enhance LFG generation. Why does the DEIS alternatives discussion fail to seriously consider either the Eagle Mountain site in Riverside County, Amboy/Bolo Station LF project or Chocolate Mountain Regional LF project near Niland as alternatives to the proposed project when Appendix F:6-2 considers Eagle Mountain and Chocolate Mountain as alternatives or cumulative impacts?

If another, or two other, or three other 20,000 tpd regional landfills are approved for construction and operation in Southern California, how will this affect the proposed project in terms of project size, capacity, origin of waste, type of waste, and duration of operation? Would these other facilities compete with the proposed Mesquite LF for access to the Southern California waste stream? With what economic consequences for Mesquite? As mitigation or for economic viability wouldn't it be necessary to import out-of-state waste since only 30,000 tpd is the "maximum anticipated waste stream for deposit in regional landfills from coastal,communities over the next 20 years" (DEIS 4-195) ?

435 Sec. 2.4.3 ALTERNATIVE WASTE MANAGEMENT PRACTICES FAILS TO INCLUDE WET CELL FERMENTATION ALTERNATIVE LANDFILL MANAGEMENT

Why did the DEIS fail to include any alternative based on the alternative "Wet Cell" fermentation technology advocated by a number engineers? (Lee 1993; Uehling 1993.) This alternative could facilitate more rapid fermentation and decomposition, more rapidly neutralize certain industrial compounds, and stabilize heavy metals by serving as a solvent and medium where toxics could mix and ultimately be locked up as hydroxides, carbonates, and sulfides which precipitate out. (Lee & Jones-Lee 1993b; Uehling 1993.)

Furthermore, such wet cell landfill alternatives would result in increased LFG generation during facility operation. This wet-cell fermentation is referred to in Appendix F and DEIS "MSW residue conditioning" (DEIS Table 4-18) and "a full-scale LFG generation enhancement program" (Appendix F:6-29; DEIS Sec. 2.1.6 p. 2-40 to 2-44). Indeed, Appendix F:8 and impacts discussion of air quality (DEIS Sec. 4.1.8.4 and 4.1.8.5) includes discussion and calculations for increased LFG generation based on "MSW conditioning ...to increase the MSW residue moisture content, methane generation, and energy recovery.")Appendix B:6-13.)

Why does the DEIS Alternatives discussion fail to include any discussion of the wet cell LF alternative as a separate alternative when there are numerous studies which have been conducted, including one in Sonoma County, California and when Appendix F discusses it under Sec. 6.3.3 as "energy recovery options" whereby

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Response to Comment No. 435

Please see response to Comment No. 434, first paragraph.

moisture content of the MSW residue "would be raised to 40% for the entire landfill" (Appendix F:6-16)?

Sec. 2.2.2 BLM PREFERS PROPOSED PROJECT - WHY?

436 Why does BLM prefer the proposed project over the No Action Alternative or the Smaller Footprint Alternative I? Does this section indicate the views of the new Secretary of the Interior that BLM lands which contain threatened species such as desert tortoise should be exchanged and used for mega-landfills rather than managed for wildlife values with landfill projects limited to already disturbed lands withdrawn from public uses by activities such as mining, particularly when the proposal is mine related?

Sec. 2.2.3. NO ACTION ALTERNATIVE

437 DEIS discussion of the No Action Alternative is inadequate because it includes only two (2) sentences (DEIS 2-76) and fails to include any meaningful discussion of the No Action Alternative actions to reduce the need for regional mega landfills. These "No Project Action" components include reduction, reuse, recycling, product take-back for refurbishing and reuse, use of smaller landfills closer to source of MSW generation, and public ownership of LFs to control what goes into the LF, origins of waste, and operating life of the landfill.

On 7/14/92 the State of Rhode Island approved Act 92-S 2502 which included services provided by state solid waste management systems and facilities, exclusion of incineration as a waste reduction option, and:

> a series of waste processing facilities designed to process a minimum of seventy percent (70%) of the municipal and commercial solid waste streams, ... and minimal use of landfill capacity and residue disposal from waste p[rocessing facilities... The plan shall also seek to minimize landfilling of any type of waste and phaseout the use of landfills for waste disposal. (Work on Waste 1992 #199, included as Exhibit M.)

Since San Diego County has adopted a policy of public ownership of landfills (Pierce 1992, Exhibit N and P) and Rhode Island has opted for waste diversion and source reduction even greater than California, more serious consideration should be given to the "No Action" Alternative.

Sec. 2.2.4 ALTERNATIVE I - SMALLER LANDFILL FOOTPRINT

438 Why, if the footprint is 456 acres less than the proposed project, does the proposed project ares include 2005 acres more? A comparison of proposed project DEIS Fig. 2-2 (p.2-4) with Fig. 2-35 (p.2-79) for Alternative I indicates no reasonable explanation why any BLM lands other then the 135 acres included within the footprint should ever be considered for use an a landfill. Why would the proposed exchange for these BLM lands be lands in the Santa Rosa Mountains in Riverside County rather than for lands within a BLM ACEC or Wilderness Study Area within Imperial County?

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Response to Comment No. 436

Please see response to Comment No. 366.

Response to Comment No. 437

Please see responses to Comment Nos. 165, 172, and 181.

Response to Comment No. 438

In addition to reducing the size of the proposed landfill, Alternative I minimizes the amount of BLM-managed land that would be obtained by the Applicant to construct and operate the proposed landfill. One reason BLM does not favor this alternative is that BLM would be responsible for the management of the land located south of the proposed site and north of SR 78. This land would be isolated from other BLM-managed land by the proposed project and SR 78. Therefore, if a regional landfill is constructed at the proposed site, BLM would prefer the land exchange to include the parcels that would be isolated from other BLM-managed land by the proposed project. Under the Proposed Action, this land would be included in the exchange. The exchange parcels that are offered by the Applicant have been identified by BLM for acquisition by BLM's planning process.

Please see response to Comment No. 304.

Sec. 2.2.5 ALTERNATIVE II - REDUCED DAILY VOLUMES
Sec. 2.2.6 ALTERNATIVE III - ALTERNATIVE MESQUITE LF SITE

439 Why did the DEIS consider 5200 acres most of which is BLM lands 4 miles SE of the proposed project site (2078) rather than the Niland site proposed by Chambers Corp as the Alternative III alternate site? Again, why the Santa Rosa lands as exchange for BLM lands rather than inholdings within ACECs or WSAs in Imperial County?

Sec. 2.2.7 ALTERNATIVE IV - LARGER PROJECT AT PROPOSED SITE

440 The Fig 2-38 and accompanying text DEIS 2-85 is noted. Does Alternative IV represent the eventual plan for the project applicant? What is the intended groundwater usage daily and annually if 30,000 tpd of MSW residue is deposited into the landfill?

Sec. 2.4 ALTERNATIVES ELIMINATED FROM ANALYSIS
Sec. 2.4.1 OTHER RAIL-HAUL MEGA LANDFILLS IN SOUTHERN CALIFORNIA - ALTERNATIVE REGIONAL LANDFILL SITES

441 Why does the DEIS rely on an old 1988 SCAG report of rail-haul landfills in Southern California rather than get updated information from the various proponents of the different proposed projects, including the Campo landfill in San Diego County? The failure to update information to reflect the current status of each of the other rail-haul sites (whatever the merits or lack of merits of each) appears to be an attempt to mislead the public and decision makers since Final EIS or Final EIR documents have already been made available for review and comment and have been the subject of decisions by various bodies for which approvals are required. DEIS Table 2-6 (p.2-95) should be updated to include accurate information for site acreage, daily disposal tons/day, lifetime capacity and estimated life for each proposed regional trash by rail landfill. Such information was available in the CIWMB 7/18/92 "Information sheet on rail haul." However, Table 2-6 should be corrected to use the most up-to-date information available. For what compelling reason was an accurate and updated set of data on other rail-haul projects not included in Table 2-6?

442 As indicated earlier the discussion of Alternatives to the proposed project is inadequate because the selection of alternatives does not meet all of the criteria defined by DEIS 2-75 based on NEPA and CEQA. The inadequacy of the DEIS discussion of Alternative regional landfill sites in Southern California or even in Imperial County is evidenced by the introductory text of Appendix A-3 which states that: "it should be noted that this study is not intended to be a comprehensive landfill site selection study identifying feasible landfill sites in Imperial County." (Appendix A-3:1; DEIS 2-86.) Why was the Alternative LF site study so truncated when even the appendix notes that NEPA "requires that an EIS describe all reasonable alternatives to the proposed action to the same level of detail as the proposed action..."? (Appendix A-3:1, emphasis added.) Where does NEPA state that the scope of such an alternatives analysis may be limited to only those sites which the project applicant owns, are adjacent to sites owned by applicant or reasonably close to sites already owned by applicant?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 439

Please see Appendix A-3 of this EIS/EIR for a detailed discussion of the site screening process used to identify an alternative site for the proposed Mesquite Regional Landfill project. The Niland site was eliminated as an alternative to the Mesquite Regional Landfill site on page 2-86 of the Draft EIS/EIR. The use of the Niland site would not reduce the environmental impacts associated with the proposed site, and the Niland site is located within a possible holocene faulting area/transitional zone associated with the East Highline Lineament (these areas, as defined by the California Division of Mines and Geology, are shown in Appendix A-3, Figure A.3-2). Please see response to Comment No. 304.

Response to Comment No. 440

The Applicant has not proposed Alternative IV. The anticipated daily ground water usage under Alternative IV would be less than 1,350 acre-feet per year or 4.3 acre-feet per day.

Response to Comment No. 441

Please see responses to Comment Nos. 164 and 314. The information from most recent CIWMB Report on Rail Haul has been incorporated into this EIS/EIR.

Response to Comment No. 442

The commentor misunderstood the focus of the analysis presented in Appendix A-3 of this EIS/EIR. The purpose of the study was not to identify all feasible landfill sites in Imperial County. The purpose of the study was to identify alternative landfill sites with the potential to reduce impacts associated with the proposed landfill site. A landfill site that would not reduce the impacts of the proposed landfill site would not meet Imperial County Objective No. 1, to approve an environmentally sound project, BLM Objective No. 1, to assure sound management of all natural resources, or State and Other Regional Agencies' Objective No. 4, to avoid or mitigate significant environmental impacts to the greatest extent feasible. Also, it would not meet any of the Applicant's objectives. The Applicant only owns a portion of the proposed site, not the entire site. That is the reason a land exchange is required.

Response to Comment No. 442 (Cont'd)

Section 15126 (d)(3) of the State CEQA Guidelines state "The discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." The alternative landfill study identified 4 regions within the County where an alternative landfill site could potentially reduce project-related impacts. Any of these areas would not meet all of the Applicant's objectives.

443 Most, if not all current landfills are considerably smaller than the proposed 4245 acre site. Why aren't smaller regional landfill sites acceptable for alternatives analysis?

The late eminent economist, E.F. authored a timely study entitled "Small is Beautiful" to offset the prevailing mania for "Mine is bigger than yours". While even small landfills are unlikely to be considered beautiful, landfills smaller than the proposed 20,000 tpd 2290 acre above ground LF would likely pose fewer problems and be less of an affront to sensitivity than a 450 foot high Cerro de Basura.

Fig. A-3.1 contains no legend. A review of Appendix A-3 leads to two conclusions. (1) There is no site in Imperial County, including the proposed project site, which is appropriate for a regional rail-haul landfill of the size of the proposed project. (2) The magnitude of the proposed project appears to have been chosen to ensure that there would be few, if any places in Imperial County, where a project of comparable magnitude could be located

444 If location in an area of "very sensitive" cultural resources is a criteria for site elimination, either it should be applied to the proposed landfill site which is in a very sensitive area for cultural resources, or alternatively, other areas of very sensitive cultural resources could be intensively studied and appropriate mitigation measures taken. Why does Appendix A-3 appear to contain one set of criteria applicable to the proposed project site, yet apply the same criteria differently to other potential sites?

Using criteria in Appendix A-3, should one conclude that preparers of the DEIS believe that the only sites appropriate for future landfills are sites where mining operations have already generated massive amounts of overburden which awaits reclamation?

Sec. 2.4.2 FILLING MESQUITE MINE PITS ALTERNATIVE

445 Consequently, the alternative of adding some overburden to fill pits to a reasonable level above water table, placing a liner system, and then filling the mine pits (Sec. 2.4.2) should be given careful consideration as an alternative because that is the technology which has been proposed for the Eagle Mountain project. Eagle Mountain project (whatever its relative merits or lack of merits) has proceeded through much of the permitting process and is currently the subject of litigation.

The Public, County, and BLM should be given the opportunity to evaluate the potential loss of lower grade mineral resources and alleviating many other environmental impacts under this alternative. Such trade-offs may be more appropriate than expanding the area of serious environmental impacts adjacent to the existing Mesquite Mine site. Accordingly the filling of the mine pits alternative should be more carefully evaluated rather than being summarily dismissed as an alternative.

Sec. 2.4.3 ALTERNATIVE WASTE MANAGEMENT PRACTICES

446 Why does the DEIS fail to include product take-back for

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 443

The size of the proposed project is driven by two considerations, the waste disposal needs of Southern California and the economies of scale associated with landfill development. All of the desert rail haul projects are proposed to be approximately the same size and to receive approximately the same daily volumes of MSW residue. This is a good indication of the perceived waste disposal needs of Southern California and the economies of scale associated with landfill development. Smaller landfills could be developed within the four regions identified by the landfill siting study, but in order to provide the same quantity of MSW disposal capacity, the total area of disturbance associated with smaller landfills likely would be greater than that required for the proposed landfill, because landfill-related facilities such as the flare, water reclamation facility, and intermodal, would have to be duplicated at each site. Smaller landfills would also be spread throughout the community, thereby potentially impacting a larger number of people than one larger, more isolated landfill. The ratio of MSW residue to material used to construct stability berms would be reduced in a smaller landfill, requiring a proportionately larger landfill footprint per ton of MSW residue disposed. Other considerations include the loss of efficiency in the ability to collect and reuse LFG and the increased cost of developing and monitoring multiple sites. For all of these reasons, it was decided that a landfill of similar capacity should be used for the alternative landfill site analysis. The hatched area on Figure A.3.1 shows areas of Imperial County with ground water within 10 to 15 feet of the surface.

The commentor's statement that there is no site in Imperial County appropriate for a regional landfill the size of the proposed project is noted.

Response to Comment No. 444

The purpose of the alternatives analysis in an EIS/EIR is to identify alternatives capable of avoiding or reducing the significant environmental effects of a proposed project. The proposed Mesquite Regional Landfill would significantly impact cultural resources on-site. Therefore, it was reasonable to try to identify areas of Imperial County that would not contain significant cultural resources. Such a site would allow BLM and the County to avoid the significant cultural resource impacts associated with the proposed project. Therefore, areas identified as potentially

Response to Comment No. 444 (Cont'd)

containing significant cultural resources were eliminated from consideration as alternative sites.

The areas identified as possible locations for alternatives to the proposed landfill were determined by overlaying the environmental information contained on the figures in Appendix A-3. The remaining areas are shown on Figure 2-41 of this FEIS/EIR. Virtually every area of the County that is identified as very sensitive for cultural resources is also eliminated for other environmental reasons, primarily seismic constraints. The exception to this is the area in the immediate vicinity of the proposed site.

The availability of the overburden material is an environmental benefit because it precludes the need to obtain cover material from a borrow area.

Response to Comment No. 445

Eagle Mountain would not begin by filling the existing mine pits. Initially, they propose to construct an above-ground landfill. They need to still conduct additional engineering and geotechnical studies before they will receive a permit to fill their mine pits. Filling the mine pits for the proposed Mesquite Regional Landfill Project has been considered by the BLM and County of Imperial and was rejected for the reasons given in Section 2.4.2 of this EIS/EIR. Please see response to Comment No. 271.

BLM and the County independently evaluated the reasons the Filling the Mine Pits Alternative was dropped from consideration and included those reasons in this EIS/EIR to provide the public with an opportunity to review these reasons. No additional evaluation or consideration of the Filling the Mine Pits Alternative is necessary.

Response to Comment No. 446

Please see responses to Comment Nos. 181 and 434, first paragraph.

refurbishing and reuse, reduced levels of consumption of consumer goods, and wet cell fermentation and deliberate leachate production?

"US EPA has indicated that the wet cell approach is compatible with federal MSW regulations and that it is being investigated by the US EPA as an alternative to the "dry tomb" approach." (Lee & Jones-Lee 1993b:8.) Lee & Jones-Lee (1993b) describe the "fermentation/ leaching wet cell" alternative. Very briefly, the fermentation/leaching "wet cell" alternative includes:

> the recycling of landfill leachate in a double-composite-lined [of the type specified for hazardous waste] landfill that contains shredded MSW followed by a decade or so of clean-water washing (leaching) of the solid waste to produce non-polluting residues. The lower composite "liner" serves not for last resort containment, but rather as a lysimeter leak detection system for the upper-composite liner. Associated with that waste treatment/management concept is required the setting aside of sufficient funding in a dedicated trust fund derived from increased disposal fees [10 to 15 cents/person/day] to exhume the wastes when leakage through the upper-composite liner cannot be stopped. (Lee & Jones-Lee 1994b:iv.)

Groundwater monitoring and vadose zone monitoring are essential parts of such a wet cell approach. And, although a period of post closure maintenance and care would be required, such a wet cell site would not require "perpetual care" because hazardous materials still remain in the MSW residue. Post closure maintenance costs would be lower than for dry tomb landfills because maintenance time would be shorter. (Lee & Jones-Lee 1993b:9.10.)

447 How similar or different is this fermentation/leaching wet cell approach from the DEIS and Appendix F referenced addition of moisture to MSW residue for the purposes of "enhanced LFG generation"? Why isn't the LFG enhancement alternative given more discussion in DEIS in sections on landfill construction, operations, mitigation and monitoring? How effective would enhanced LFG generation be if MSW residues were not first shredded before addition of moisture? What are potential CIWMB or RWQCB concerns and/or appraisals of this alternative?

Sec. 2.4.4.1 TRUCK HAULING ALTERNATIVE

448 DEIS Table 1-1 indicated that at present Imperial County generates 99,000 tons/year of MSW and has 35 years of remaining capacity. If that material were to be deposited at the proposed landfill it would require 3960 truck loads/year (25 ton capacity). Have these uses and impacts been figured into calculations in the event that when and if Imperial County comes into compliance with state mandates, it could determine to ship MSW to the proposed site?

Citing the deleterious and very serious environmental impacts

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 447

Please see response to Comment No. 434, first paragraph. Though the details of the LFG enhancement pilot program have not been finalized, LFG generation can be enhanced by the addition of varying amounts of water or nutrients, and no leachate needs to be created nor does the biochemical process of fermentation need to occur. Shredding or other physical manipulations of the MSW residue might enhance LFG generation and therefore could be evaluated in the pilot program. The Draft EIS/EIR analyzes maximum potential impacts due to LFG generation in an effort to determine whether the impacts are significant. Environmental control procedures, including a more extensive vadose leachate monitoring layer for the pilot program area, are proposed to reduce potential impacts. Based on the analysis of the design proposed, no significant impact would result from the Proposed Action. This would include impacts from the small-scale pilot program as described in the Draft EIS/EIR.

Response to Comment No. 448

This EIS/EIR considers the potential impacts of Imperial County MSW residue being hauled by train from Niland and by truck on SR 78 through the sand dunes to the proposed site (Section 4.1.6). This EIS/EIR considers the impacts of approximately 10,000 trucks per year (30 per day) in the year 100 rather than the 3,960 trucks per year that would be required to haul current Imperial County MSW volumes. It is not possible to adequately predict the details of how trucks would arrive at Niland or SR 78, therefore, the impacts of trucking MSW residue to those to areas would be speculative and has been left to future environmental review, should Imperial County decide to send its MSW residue to the proposed landfill. The environmental impacts of short-term truck haul are addressed in this EIS/EIR (Section 4.1.6), and are not significant. The reference to Section 4.6.1 on page 2-103 of the Draft EIS/EIR is a typo. The reference has been corrected in this Final EIS/EIR to Section 4.1.6, Transportation.

and physical constraints of the existing road system in Imperial County as limitations or constraints on truck haul, the DEIS states that "truck haul as an alternative to rail haul for the Mesquite Regional Landfill was eliminated from further consideration." (DEIS 2-104.) Why are the environmental impacts of this alternative excluded from the DEIS when the section also states that: "Short-term truck haul would be used in the event disruption to the SP Main Line prevented MSW residue delivery by rail (Section 4.6.1)"? (DEIS 2-103.) Why is Section 4.6.1.cited when it has nothing to do with rail haul in the event of disruption of rail transport?

Sec. 2.4.4.2 ALTERNATIVE RAIL HAUL ROUTE

449 If MSW residue is imported from other states and sources other than Southern California, what would be the rail route? Wouldn't much of that waste enter Imperial County through Phoenix and Yuma, Arizona,. the very routes rejected by DEIS 2-104?

Concerns about importation of waste from outside California are not unreasonable given the recent operating history of one partner, Western Waste Industries. Western Waste imported municipal incinerator ash from Long Beach, NY and Stamford, CT (Pendley 10/29/90) and imported trash 183 miles from Dallas, 216 miles from Fort Worth and 294 miles from Houston, TX (Myers 7/30/88) into its landfill in Miller County, Arkansas. (Pendley.)

CHAP. 3.0 AFFECTED ENVIRONMENT
CHAP. 4.0 ENVIRONMENTAL CONSEQUENCES

Sec. 3.1.1 GEOLOGY/SOILS/MINERAL RESOURCES:

450 DEIS discussion of geology/soil/mineral resources is inadequate because it includes unsubstantiated and unreferenced assertions about the resources of the area of the proposed project. Further, DEIS fails to provide explanations for technical terms and issues which would be unfamiliar to the lay decision-makers of Imperial County's Planning Commission and Board of Supervisors.

What are "condemnation borings" (DEIS 3-11)? How are they performed and to what depth do they reveal information?

Why is the potential for development of the known resources of the adjacent Glamis Geothermal Resource Area considered to be low (DEIS 3-11)? Why are no references cited for this assertion?

What is the purpose and what are the implications of the "current proposal to formally withdraw the area from the operation of the mining laws" (DEIS 3-11)? Is this a separate action which requires formal documentation and public comment prior to such an action?

Mineral Resources: Loss of 500,000 to 700,000 tons/year of aggregate for construction and maintenance of state and county roads.

451 DEIS is inadequate because it fails to include discussion of environmental consequences of loss of aggregate resources for

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 449

Please see response to Comment No. 200, paragraph seven.

Response to Comment No. 450

Appendix C of the Draft EIS/EIR contains a detailed analysis of site geology. Approximately 56 references are provided to support the investigations. This information formed the basis for development of the geology section of the Draft EIS/EIR (Section 3.1.1) and the evaluation of potential environmental impacts to geologic resources.

Condemnation borings are performed to assure that no economic mineralization is present in areas proposed for construction of structures or facilities. These borings are rotary drilled and typically are approximately 600 feet in depth.

The potential for development of known resources, within the Glamis Geothermal Resource Area, was determined to be low by the BLM. This information is contained in the California Desert Conservation Area Plan developed by the Department of Interior.

Formally withdrawing the referenced area from the operation of the mining laws is an action that is unrelated to the Proposed Action and will require a separate NEPA document. The purpose of this withdrawal would be to continue the segregative effect of an existing Classification and Multiple Use Act segregation. This will allow BLM to continue to make sales of sand and gravel from this area, when these are determined to be in the public interest.

Response to Comment No. 451

Please see response to Comment No. 372. The fair market value of the public gravel resources on-site was considered in determining the appraised value of the BLM lands that would be exchanged. The "Mineral Potential and Mineral Appraisal of 1877.7 Acres of Lands Selected for Exchange by Arid Operations, Inc. In Portions of Sections 8, 15, 17, 18, 19, 20, 21, and 22, T.13S., R.19E., S.B.M., Southeastern Imperial County, California (CACA 30689)" reports the appraised value of the aggregate and sand resources to be Two Hundred Sixty Nine Thousand Dollars ($269,000.00).

continuance of past and current uses from the proposed project site if all aggregate resources are used in "construction and operation" of the proposed LF and related facilities (DEIS 4-2). If 500,000 to 700,000 tons of aggregate of aggregate per year (historical use) is lost from use of state and county road maintenance and other projects (DEIS 3-11), what are the locations of other sources of aggregate gravel resources which would replace aggregates removed from the BLM site at the proposed project? Why doesn't DEIS (Sec.4.1.1.2) discuss the off-site environmental consequences to other public or private sand and gravel pit operations areas in Imperial County associated with the loss of a BLM site from which 500,000 to 700,000 tons/year were removed for construction and road maintenance purposes? What are the environmental consequences at other potential sites for which applications are or may be submitted for such aggregate removal? What is the remaining capacity of other existing sand and gravel pit operations in the vicinity to serve as sources of aggregate to replace the loss or removal from the proposed project site in addition to the existing annual withdrawals? Why are no mitigation measures included to compensate for such a loss of use of aggregate materials included in Sec. 4.1.1.3? Based on DEIS discussion, we conclude that the impacts to mineral resources would be substantial based on criteria

452 because the proposed project and transfer of BLM lands would "Substantially restrict the ability to utilize geologic (mineral) resources" in the historic manner. (DEIS 4-1.)

Erosional activity remediation responsibility

453 For what period of time including for how many years, decades post-closure would the "Applicant be required to apply coarse mine overburden material, sand bags, geotextile fabric or other erosional control measures to the area of erosional activity" (DEIS 4-1)? What third party review would determine the adequacy of these efforts?

454 **Soil characteristics:** What specifically are the criteria for designation of Chuckwalla Gravely Loam as having a "high concentration of salts" in the soil in Table 3-1 (DEIS 3-12)? At what level are the "high concentrations of salts" in this soil toxic to plants? What specifically are the salts and their concentrations in this soil type? How is this soil type salt concentration different from other Imperial County soils with high salt content, but which support growth of salt tolerant species of plants?

FAULTING AND SEISMICITY

455 What is the potential for seismic activity along a pre-Holocene fault such as depicted on DEIS Fig. 3-1 and/or Fig. 3-3 during the centuries and millennia to come? What is the potential for seismic activity along a new fault trace such as has occurred during major fault events of the past decades in Southern California? These are important questions because referenced studies in Lee & Jones and ERF indicate that lined landfills from which moisture is excluded will remain a source of pollution essentially forever. These questions are important because Appendix C states that the Salton Trough, a few miles west of the proposed project site (DEIS 3-2), "represents an active divergent plate boundary

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 452

The commentor's disagreement with the conclusion of this EIS/EIR that the loss of on-site sand and gravel resources is not significant is noted; however, given the large availability of sand and gravel resources in the gravel withdrawn area immediately west of the proposed site compared to the low demand for these resources, the conclusion that impacts would not be significant is correct.

Response to Comment No. 453

As described in Section 2.1.4.1 of this EIS/EIR, the slope areas for segments that would ultimately form the outside landfill slope would be completed to their final configuration using stability berms of compacted soil and adding an erosion-resistant rock surface. This would be performed throughout the life of the landfill as segments are completed. Once the landfill is completed, the entire outside portion would be covered with the erosion-resistant surface.

During post-closure, the outside surface of the landfill would be monitored quarterly with oversight from the CIWMB, and final cover that has been damaged or which otherwise needs maintenance would be given proper attention. The final cover would also be checked after a significant rain event for damage and to assure proper functioning of the drainage control structures. Please see response to Comment No. 334.

Response to Comment No. 454

The description of soils in the project area is based on a soil survey performed by George Borst for Gold Fields Mining Co. in 1983. The survey is referenced as Borst, G., 1983 in the Draft EIS/EIR. A copy is available for review at the office of the BLM in El Centro. The survey considered soils throughout the project area. The following is an excerpt from the survey report describing the Chuckwalla gravelly loam soils:

> "These soils are nearly barren, and are incapable of supporting vegetation because of their low infiltration capacity and high salinity. Their very sparse vegetation is of no economic value. They are classified as loamy-skeletal, mixed, hyperthermic Typic Haplargids. They are classified as Chuckawalla gravelly loam in published soil surveys.

Response to Comment No. 454 (Cont'd)

> "Their thin surface horizons are very low in nitrogen, phosphorous, and organic matter, and very high in calcium, sodium, boron, and lithium, and in total salt content. Concentration of these toxic elements and total salt increases with depth, and reaches a maximum between 12 and 25 inches. Because of their very high concentration of these salts, they are incapable of supporting even salt-tolerant plants.
>
> "Their entire profile is very gravelly. The weighted average gravel content of the soil to a depth of 44 inches is 56 percent, exclusive of the gravel desert pavement at the surface."

Response to Comment No. 455

Geologists consider faults that have moved within the last 10,000 years (Holocene) as active. This is consistent with federal and state laws (CCR Titles 15 and 23; CFR Section 258 [Subtitle D]) that require that landfills not be built within 200 feet of a Holocene, or active, fault. The Holocene fault studies presented in Appendix C of this EIS/EIR include an investigation of the Algodones Sand Dunes, which are approximately five miles west of the proposed Mesquite Regional Landfill. The investigation in this area concluded that there is no evidence of Holocene faulting beneath the sand dunes. This conclusion was supported by the lack of indicating features in the area, such as offsetting ridges, offsetting vegetative patterns, or offsetting drainages. The active nature of the sand dunes would not necessarily obscure these indicating features. The East Highline Canal lineaments were identified in that study as potential Holocene features, and were used for the seismic analysis in this EIS/EIR. The closest active (i.e., Holocene) fault to the proposed Mesquite Regional Landfill site would be nine miles to the west (see Section 3.1.1 of the Draft EIS/EIR).

Please see response to Comment No. 226 for a comparison of seismicity conditions in the Los Angeles Basin as compared to the site area.

Appendix E of Appendix C is the last page of the bound volume that is available for review at the Imperial County Planning Department and BLM offices in El Centro, and at the 25 libraries listed in the Draft EIS/EIR.

with a transform-pull apart system." (Appendix C:2-1.) The Salton Trough developed as a result of crustal spreading. And "Seismicity associated with crustal spreading continues to occur today, primarily associated with active fault systems located 26 or more miles away." (Appendix C:2-1.)

"[A] major [seismic] event on the San Andreas might cause or trigger sympathetic movement on one of the trough edge faults [East Highline Canal Lineament, East Mesa Faults, or Sand Hills Faults].' (Appendix C:D-6.)

How would it be possible to determine if Holocene faulting had occurred under the moving Algodones Sand Dunes if evidence of faulting is covered by sand? What studies discuss this subject?

Appendix E of Appendix C is missing from the bound volume of Appendix C available for our review.

456 **Impacts of seismic activities on liner and cover FML materials, leachate collection system, LFG collection system and monitoring wells:** DEIS and its Appendices are inadequate because the documents fail to discuss the potential environmental consequences of seismic activities on the man-made components of the proposed landfill project in Sec. 4.1.1.2. What engineering studies discuss the performance characteristics of the HPDE FML underneath tons of compacted MSW residue, MSW residue which results in liner materials exposure to a variety of chemical constituents and solvents, and a liner system aged through time when exposed to sharp seismic movements? Please include written engineering information or manufacturer's warranties addressing liner performance characteristics and capabilities during and/or after experiencing effects of a MCE seismic event on the nearest fault or a major event on a more distant fault such as San Andreas.

457 It is well understood that water wells are damaged by earthquakes. How would potential seismic damages to the FML lower LF liner, cover liner, leachate collection and monitoring systems, LFG collection and monitoring systems and groundwater monitoring wells be evaluated and remediated following damage from a major seismic event if these systems do not withstand ground motions associated with the MCE and MPE as asserted (DEIS 4-4)? Would there be independent third party inspection and evaluation of potential damage? How would any detected damage be remediated?

Sec. 3.1.2 WATER RESOURCES

458 Since landfill liner and leachate control systems design must be presented to the Regional Water Quality Control Board (RWQCB) for consideration of the Waste Discharge Order (WDO) (DEIS 3-26), why aren't the specific details of these designs and installation procedures, monitoring and replacement or repairs included in the DEIS for public comment and review? Where are the details of the unsaturated (vadose) zone and groundwater monitoring placement, monitoring and replacement programs? Where are the details of the landfill closure and post-closure procedures and monitoring? Where are the details of monitoring system and programs for routine

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 456

Please see response to Comment No. 110 for a discussion of seismic impacts on critical landfill components.

Response to Comment No. 457

Please see response to Comment No. 110 for a discussion of seismic activities on critical landfill components. That discussion also includes a description of the redundant and complementary environmental control and monitoring features that would establish overlapping protection in the event of failure of one component.

Response to Comment No. 458

The design details provided in this EIS/EIR were sufficient to fully analyze the environmental impacts of the Proposed Action and to identify mitigation measures. . The public will be able to review the application package for the WDR when it is formally submitted to the RWQCB. Please see response to Comment No. 110. Detailed design will be completed after the BLM and County discretionary action to approve the landfill, as is typically done. Please see responses to Comment Nos. 201, 216, 401, and 432.

replacement of component parts? Where are the details of the remediation actions to be taken if LFG or leachate are detected as escaping from their containment and collection systems? Where are the financial histories of the proposed project partners, compliance and violations histories and financial assurance method planned for the corrective actions in perpetuity for the proposed project? For what compelling public purpose should any of this information be withheld from the DEIS volume distributed for public review and consideration by elected and/or appointed decision makers? Is it expected that all Planning Commissioners and County Supervisors will review all appendices looking for information?

Moisture sources in proposed landfill

DEIS Appendix B:H.1-2 erroneously assumes that:

> Because liquid wastes would not be disposed at the proposed Mesquite Regional Landfill potential leachate generation would only be associated with rain which may fall onto and infiltrate through the compacted municipal solid waste (MSW) residue. It is not anticipated that leachate will be generated for most of the operating life nor at closure for each disposal segment due to the arid climate in the site area. (DEIS Appendix B:H.1-2.)

459 Because incorrect rainfall data was used in the HELP model calculations and because the B:H.1-2 assumptions are inconsistent with USEPA discussions of MSW moisture content, Appendix B conclusions are questioned. Why does Appendix B:H fail to cite any references to support its assumption that MSW residue from Southern California urban areas would contain no residual moisture as do MSW residues from other parts of the country? Is the DEIS assumption supported by CIWMB data? If so, please include the CIWMB data? Why does Appendix B:H reach this conclusion when DEIS 2-28 states that "anticipated moisture content of the waste is expected to be 20 percent" and Appendix F Table 6-2 indicates 23% before the year 2000?

Further, cover soils would be pre-wetted to 12% (DEIS 2-28). In addition, Appendix F Table 6.2 indicates that "Water conditioning would bring moisture content on a wet basis of the MSW residue at the top of the landfill from 23 to 40 percent." How would a more accurate assessment of soil moisture and MSW moisture content affect the results of HELP model calculations?

460 MSW residue moisture content information in Appendix F should be included in DEIS. Why does the DEIS fail to include Appendix F Table 6.2 "Assumptions for estimating LFG generation rate"? This table includes details of characteristics of "average MSW residue after AB 939" including the percentage of each component (decomposable fractions of organic materials: food waste, paper waste, vegetative waste and the non-decomposable, primarily non-organic remainder) and the moisture content of each component. However, it apparently does not include any calculations based on the additional landfilling of agricultural wastes from Imperial County. Nevertheless, Appendix F Table 6.2 should be an essential addition to the DEIS itself rather than remain buried in the Appendix where

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 459

The MSW residue moisture contents of 23 and 27 percent (by weight) for 25 and 50 percent recycling of MSW, as required by AB 939, were based on MSW composition data provided by the Solid Waste Association of North America (SWANA, 1991), a reference listed on page 7-4 of Appendix F (Air Quality Analysis). No comparable data was available from the CIWMB. Correct rainfall amounts, obtained from Mesquite Mine rain gauges, for the 1992-1993 heavy rainfall season were used in the HELP modeling of maximum infiltration to determine that no leachate would be generated. The modeling included prewetting of cover soil to 12 percent moisture content by mass. The MSW residue conditioning program would only be applied on a small pilot test scale, while the HELP modeling was applied to the Proposed Action for "as received" MSW residue.

Response to Comment No. 460

Please see responses to Comment Nos. 401 and 404.

it would not likely be seen by most reviewers.

461 Why does the DEIS provide detail of varying energy recovery options based on "conditioned MSW residue" with an enhanced moisture content of 40% (Appendix F:6-13) but fail to discuss the increased leachate generation potential associated with increasing moisture content from estimated 23% (Appendix F Table 6.2) before year 2000, and 27.4% after year 2000 to 40%?

462 **Agricultural plant materials - Moisture content**

In its discussion of Air Quality, DEIS notes that "gathering the agricultural plant material that would otherwise be burned in the fields ... to be hauled to the landfill and either used as cover amendment or landfilled." (DEIS 4-91.) Either use of agricultural materials would add additional moisture to the existing and already compacted MSW residue and cover material. What is the anticipated moisture content of agricultural plant materials from Imperial County which might be landfilled? Why wouldn't the cumulative amounts of moisture from all sources be available for leachate generation as well as being important in LFG generation? Would the definition of "agricultural plant material" be expanded to include plant material which has passed through the digestive systems of animals in feedlots, 4H projects, or farms? Why should one have to refer to Appendix F Sec. 6.3.1.1.8 for discussion of agricultural plant materials to be trucked to the LF site?

Hazardous waste in MSW residue hauled by WWI in past

463 Of additional concern is the compliance history of the only partner with any significant experience with MSW handling and landfilling. The Los Angeles Times article "Hazardous waste case brings fine of $125,000" describes the reports of former Western Waste Industries:

> that excess hazardous waste was dumped at the transfer station in Carson whenever trucks headed for licensed hazardous waste dumps in Santa Barbara and Kings County exceeded legal weight limits.
>
> .... The mud-like material [containing nickel and chromium waste] was then mixed with household garbage and hauled to the local landfills [in southern California]. (Rabin 1989.)

Such apparently intentional disposal of hazardous waste also resulted in the unanticipated addition of moisture (as suggested by the term mud-like) to the MSW residue. If it happened at the Western Waste transfer station in Carson between 1/85 and 7/86, what assurances do we have that such activities might not happen again?

Inaccurate & inadequate rainfall data in water resources discussions:

464 Why doesn't the DEIS or Appendix B contain rainfall measurements at the proposed project site near the existing Mesquite Gold Mine through 1993? Why does Table 4.1 (Appendix B) contain no rainfall data for 1988 and years thereafter when DEIS indicates that there were rainfall measurements "between 1984 and 1992" when there were "measurable flows" in washes at the Mesquite Mine (DEIS

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Response to Comment No. 461

A pilot LFG enhancement program would be conducted at the proposed landfill to develop the necessary information to prepare the requested leachate generation analysis. The air quality section was prepared using a maximum likelihood estimate for MSW moisture content, assuming LFG enhancement. Table 4-9 and Table 4-10 of this EIS/EIR show the expected emission of criteria pollutants from the landfill for the as received MSW residue and water added MSW residue, respectively.

Full-scale LFG enhancement is a speculative project that may or may not be feasible. At this time it is not possible to predict the quantities of leachate that would be generated by a full-scale LFG enhancement program because it is not possible to reliably predict the mixture of moisture and/or nutrients that would optimize LFG creation. It is precisely because this mixture cannot be predicted that the pilot program is proposed.

Response to Comment No. 462

Diversion of agricultural plant material is one potential source of emission reduction credits shown in the discussion on pages 4-91 and 4-92 in the Draft EIS/EIR to be capable of adequately offsetting emissions of nonattainment pollutants and precursors from on-site stationary sources. The agricultural plant material that would be diverted from burning is an agricultural waste, and not a municipal solid waste, and it is regulated differently than MSW. Diversion could constitute simply tilling the plant material into the field where it grew. In that case, no additional MSW, or moisture, would be added to the landfill. If all of the plant material is diverted to the landfill, the maximum amount that could be diverted each day can be determined by subtracting the offset threshold of 137 lbs/day from the maximum stationary source NO_x emission of 650 pounds per day shown in Table 4-9 of the Draft EIS/EIR and dividing the difference by the NO_x emission factor in Table 6.10 of Appendix F of the Draft EIS/EIR. The resulting 210 tons per day of agricultural plant material is less than 1.0 percent of the 20,000 tons of MSW residue landfilled per day, and would, therefore, have no significant cumulative effect on landfill moisture or LFG generation, and would not create leachate. Manure is currently burned or composted in Imperial County (LEA, 1995). Manure could be classified as MSW, but it is not typically landfilled and the Applicant has not proposed to accept manure at the proposed landfill. Please see response to Comment No. 401.

3-27)? Records from other rain gages in Imperial County (and from other DEIS technical Appendices for the Mesquite Mine) indicate that rainfall is highly variable from year to year and from locality to locality, with more dramatic variations closer to topographic features such as mountains. How can anyone guess what the daily storm event rains or annual rainfall at the proposed project site might be like during the next century of proposed LF operations? What is the greatest anticipated 24 hour or 6 day rainfall amount in the vicinity of the proposed site?

Climatic conditions (Appendix B - Hydrogeology) Rainfall data

Appendix B (4-1) notes that based on only 4 years of data (at the Mesquite Mine for 1983 to 1987) the average rainfall "in the site area" is approximately 3 to 4 inches/year, varying from 1 to 7 inches/year. Rainfall in Imperial County desert areas is highly variable and greatly influenced by nearby topographic relief features (orographic effects). In the Ocotillo area rainfall measured at rain gages within 1 mile and 5 miles apart shows great variability, with one gage often receiving considerable rain, and another none. 17 years of rainfall data kept by residents 5 miles SE of Ocotillo has varied from 0 measurable rainfall to more than 11 inches in one year. Last year rainfall was 6.9 inches.

Appendix B:H.1-3 references rain in 2/93 with no amount reported, and B:6-5 refers to the "1992-1993 rainy period" but fails to state the rainfall amount. Why are no numbers provided? Why does the Imperial County rainfall data cited exclude the years of the heaviest rainfall during hurricanes Kathleen and Doreen? On the west side of Imperial County residents experienced 3 one-hundred year storms with significant run-off and flooding during a six year period, with the first storm being in 1976.

Climatic conditions (Appendix D - Biological Resources) - Rainfall data

Rainfall data was gathered at the Mesquite Mine site from 1983 to June 1992 (Biological Resources Appendix D-1:13), not merely from 1983 through 1987 as indicated by the Hydrogeology Technical Report (Appendix B Table 4.1 (a table dated 10/28/93)). The Appendix D Mesquite Mine rainfall data indicated that 3 of the 10 years had rainfall in excess of 5 inches/year, that Dec. 84 had 3.14 inches of rain, March 1992 had 4.07 inches of rain. Further, during the first 6 months 1992 rainfall was 7.46 inches before the beginning of: "The usual rain season [which] is from July through January." (Appendix D-1:13, and Table 1 at D-1:14; included as Exhibits H and I herein.). The rainfall for the first 6 months of 1992 was twice the expected annual rainfall. (Appendix D-1:36.) Why was this data withheld from those preparing other technical reports and the DEIS itself? What is the rainfall data for the remainder of 1992 through July of 1994?

Climatic conditions (Appendix F - Air Quality) - Rainfall information

Why should one have to review the Technical Appendix F for Air Quality Analyses to find answers to questions about rainfall information missing from the April 1994 DEIS? Why do both the

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Response to Comment No. 463

Please see responses to Comment Nos. 216 and 324.

Response to Comment No. 464

It is not necessary to guess the variations in rainfall that could occur in the site area. The drainage structures are designed to handle the 100-year, 24-hour storm event. This is consistent with state regulatory requirements for Class III landfills, and would assure that nearly all variations in rainfall would be handled. See also response to Comment No. 53 concerning the probable maximum precipitation event. Also, please see responses to Comment Nos. 138 and 401.

Appendices for biological resources and air quality contain information which clearly document that the DEIS and hydrogeology appendix underestimate the potential for rainfall at the project site?

"The arithmetic mean annual precipitation at the site for the years 1983 through 1987 and 1991 was 4 inches, and the maximum was 13 inches in 1992." (Appendix F:2-5.)

Appendix A - Short, high intensity precipitation events
Even the NOP (Appendix A, 3/10/92 NOP:4-19) states that:
Although it rains infrequently at the proposed LF site, the control of surface water runoff would be an important design factor because measurable precipitation usually occurs as short, high intensity precipitation events. This condition results in high peak flows in drainage channels, which increase flow from no flow to maximum conditions within several minutes, usually the flowing conditions occur for less than 1 hour. (NOP:4-19.)

Use of the word "usually" also implies that there are occasions where flow lasts for longer than one hour. In any event, these same conditions would also create runoff on the LF face with likely puddling, uneven infiltration, and erosion.

1.65 inches of rain on 5/24/94
That periods of heavy rainfall are not uncommon at the proposed site is evidenced by the 1.65 inch rainfall on 5/24/94 (Mitts 6/8/94). Viewing the lined drainage channel through the mine during the 6/8/94 Planning Commission workshop bus tour revealed large rocks and a recently uprooted tree with still green leaves in addition to standing puddles of water from the 5/24/94 rain.

With DIES underestimates of rainfall and failure to include accurate rainfall information, what credibility can or should be attached to DEIS discussion of potential moisture infiltration, leachate production, and/or landfill gas generation?

HELP Model underestimates potential for leachate generation

465 If the assumptions of Appendix B:H.1-2 included above were used in calculations for the US EPA's Hydrologic Evaluation of Landfill Performance (HELP) model as is apparent in Appendix B:G, this would underestimate the potential for leachate generation at the proposed project site. The conditions of infiltration following heavy rains as cited (Appendix B:H.1-3) suggest that placement and compacting of MSW residue over moist soil and/or moist MSW residue following even the infrequent rains will further entrap moisture in the LF. Further, the proposed inclusion of a leachate collection and recovery system (LCRS) (Appendix B) suggests the anticipation of leachate generation.

Both Appendix B (hydrogeology) and Appendix F (Air Quality) provide estimates of evaporation rates and cite the same reference source. However, Appendix B gives an estimated evaporation rate of

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Response to Comment No. 465

Please see response to Comment No. 110.

Evaporation rate is affected by many variables, including. the size of the body of water, wind speed, temperature, and solar insulation. For example, SHB (1984) gave the evaporation rate as 137 inches per year when measured in a Class A evaporation pan. Correcting the effect of a small pan, usually approximately 4 feet in diameter, to the equivalent evaporation rate from a lake or other large body of water, is accomplished with a correction factor of 0.7. The resulting equivalent lake evaporation is 96 inches. Both references (SHB, 1984; Kohler, et al; 1959) give the same annual Class A pan evaporation rate as 137 inches, which should have been corrected to 96 inches (instead of 86) of equivalent lake evaporation in Appendix F on page 2-14 to the Draft EIS/EIR. This correction does not change any calculations because evaporation rate is not used to calculate other variables.

Concerning rainfall data, Appendix F, page 2-5 incorrectly reported rainfall as 12 inches in 1992. The correct rainfall amount was 10.6 inches. Appendix D, Table 1 reported rainfall of 7.46 inches. This was for the period January through June, 1992. This number was also incorrect. The correct rainfall amount for January trough June, 1992 was 7.76 inches, or 10.6 inches for calendar year 1992. Although the HELP model run shown in Appendix G of Appendix B to the Draft EIS/EIR used Yuma rainfall data for 1989, 1990 and 1991, subsequent HELP model runs for various cover thicknesses used actual rainfall data from the Mesquite Mine for the 1992-1993 rain season (July to June). These later runs are discussed in Response to Comment No. 110 and can be reviewed during normal business hours at the BLM El Centro Resource Area Office and at the Imperial County Planning Department. There is no requirement that the HELP Model be run for 13 inches of rain per year.

"about 100 inches per year" (Appendix B:4-1), while Appendix C:2-14 gives a figure of 86 inches per year. If both Appendices were prepared by the same consultant, why is there such a difference in numerical figures provided? What figure was used in estimating evapotranspiration rates at the Mesquite Mine site/proposed LF site?

A review of the tables in Appendix B (Appendix G HELP model) reveal that the rainfall data used for the computer runs was not the same as the rainfall data provided in DEIS Appendix D-1 Table 1 (p.14) and in Appendix F:2-5 which indicates 13 inches of rain in 1992. Why wasn't the HELP model run with actual measured rainfall data provided in Appendix D and F which measured rainfall at the adjacent Mesquite Mine site?

466 Although the HELP model purports to be based on site specific precipitation data (Appendix B:G-1), the following table compares the precipitation figures used in the HELP calculations with rainfall data presented in other DEIS appendices.

RAINFALL DATA AT MESQUITE MINE VS. HELP DATA

	Mesquite Mine data Annual Rainfall		Used for HELP model Annual Rainfall	
Year	Inches	Reference	Inches	Reference
1990	2.56	Appendix D:14	0.19	Appendix B:G-4
1991	3.66	Appendix D:14	0.28	Appendix B:G-5
1992	13.00	Appendix F:2-5		
89-91 Ave.			0.16	Appendix B:G-6
9 yr. ave.	4.12	D:14; F:2-5; B:H.1-1		
	Peak daily rainfall		Peak daily rainfall	
89-91			0.01	Appendix B:G-7
5/24/94	1.65*	Mitts, 6/8/94 tour		

* May not be highest peak daily rainfall, but it is the only data we have.

The HELP model program should be rerun using correct data for rainfall and evapotranspiration. What would the results be if the more accurate average annual rainfall of 4.12 inches over nine years or the 1992 were used in the HELP computer program? How would a program run using 13 inch/year rainfall change estimates of infiltration, percolation, and soil moisture storage and lateral drainage at the proposed LF site? Because rainfall data used in the HELP model for 1990 and 1991 were not the same as what was reported in other appendices, what credibility can be placed in assurances that during "an unusually wet year such as the 1992-93 rainy period" that infiltration through daily cover would only be 6 inches (Appendix B:6-5)? What data were used for this calculation?

467 What would be the equivalent precipitation added to achieve a 40% moisture content of MSW residue for enhanced leachate generation? What would be results and conclusion of HELP model about infiltration resulting from wetting MSW residue to 40% moisture content?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 466

This comment continues the discussion of precipitation and the HELP model. Although the HELP model run presented in Appendix G of Appendix B of the Draft EIS/EIR has the lower rainfall amounts from Yuma recorded during the years 1989 through 1991, most of the runs for various cover thicknesses used a rainy season total precipitation of 10 inches, which equals the rainfall received during the second half of 1992 and the first half of 1993. This total represents the sum of the approximate 3 inches that fell during the second half of 1992 and 7 inches that fell during the first half of 1993, including individual rain events up to 2.2 inches per day. Hence, the HELP model was run with the normal rainfall data, as suggested in the comment, and with the much higher rainfall recorded during the 1992-1993 rain season. Even with this rain season total of approximately 10 inches, the model did not predict that leachate would be created. Please see responses to Comment Nos. 110 and 465.

Response to Comment No. 467

As shown in Table B.22 in Appendix B (Emissions Tables) of Appendix F (Air Quality Analysis) of the Draft EIS/EIR, 24 inches of annual rainfall would provide the equivalent amount of moisture in MSW residue conditioned for LFG enhancement. The resulting moisture content of the MSW residue would be just below the field capacity operating limit of the MSW residue and cover material, and hence, leachate would not be expected to form. In fact, for all moisture contents lower than field capacity and higher than "as received," leachate would not be expected to form.

468 Additionally, the HELP model cover discussion erroneously states that Yuma, Arizona is only 6 miles from the proposed project site (Appendix B:G-1). By contrast Appendix F:2-1 indicates that Yuma is 35 miles from the proposed project site. Why are there so many discrepancies in numeric figures in the different appendices and DEIS? How would compaction of MSW residue and daily cover affect LFG and leachate generation? How can the public and decision makers be expected to place much confidence in computations based on such a confusion of numeric information supplied by the DEIS and its appendices prepared by Environmental Solutions, Inc (ESI)?

469 Landfill cover:
Of great concern is the statement that landfill cover on closure will be "either a minimum of 7 feet of compacted soil at slope areas, or flexible membrane liner (FML) and soil combination on the flatter top areas." (Appendix B:H.1-4,; emphasis added.) Why the "either" , "or" scenario for closure cover? What are the details of cover liner to be used? Complete design for the rolling closures of the LF should be provided in the DEIS if such is the proposed method of closure.

MURPHY'S LAW and landfill liners
In discussing probabilities related to composite liner failure, there is no discussion related to the applicability of Murphy's Law to the performance of liner systems as experienced at the majority of other lined landfills. The "too-good-to-be-true" promises of liner system performances have been found to be wanting for the Hazardous Waste landfill in Imperial County west of Westmoreland. Murphy's Law appears to be a more reliable predictor of "estimated control system" performance than the undocumented EIS/ EIR assurances.

470 Why are DEIS and Appendix B discussions of proposed liner based on "preliminary design ... subject to modification" (DEIS 3-37) rather than the results of more research? The DEIS misunderstanding of what is meant by a composite liner is not reassuring.

Appendix B provides details of the spacing, vertical and horizontal separation for the LFG collection system (Appendix B:H.1-9) but provides no comparable detail for the LCR system design and installation in its discussion of the "Estimated Control System Performance" (Appendix B:H,1-5 to 1-9). Does the proposed project intend to include any leachate Control and recovery system and monitoring for leachate? If so where is the text description? DEIS 2-19 is vague as is discussion on 2-39 and 2-40.

Full details of a LCRS are essential because DEIS discusses a LFG enhancement option (DEIS 2-40; 2-44; 4-76; 4-109 to 4-113) based on increasing the moisture content of the MSW residue to 40% (Appendix F:6-13). How would the increase in volatile organic compounds (VOCs) that accompany increased LFG generation interact with or react with various components of the liner system, cover and LCRS and LFG collection systems?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 468

Typos have been corrected in this Final EIS/EIR. Please see responses to Comment Nos. 328 and 378 for a discussion of the effects compacting MSW residue would have. We apologize for any confusion typos may have caused the reviewing public and agencies.

Response to Comment No. 469

The reference to "either or" in the text was misleading to the commentor, though not incorrect. The proposed landfill final cover for the Mesquite Regional Landfill would be both a minimum 7 feet of compacted soil on the slope areas, and an FML and soil combination (i.e., 2-foot foundation, FML, 2-foot top layer) on the flatter top areas. Please see response to Comment No. 428. As described on page 1-21 of the Draft EIS/EIR, the analysis presented in this EIS/EIR are generally conservative. "Best" or "Worst" case analyses were avoided in favor of more balanced "Maximum Likelihood" analyses. This approach was adopted to provide the reader with an understanding of the environmental effects that are likely to occur, and not to affect the readers' understanding by presenting environmental effects that are unlikely to occur. CEQA does not require worst case analyses. Maximum Likelihood analyses are allowed by NEPA provided they are supported by credible scientific evidence, are not based on pure conjecture, and are within the rule of reason (40 CFR 1502.22(b)(4)).

Response to Comment No. 470

Please see response to Comment No. 458. The Applicant does propose to include a LCRS as described in Section 2.5.1, and a supplementary leachate subsurface monitoring system as described in Section 2.1.7.1. Additional details are provided in Appendix H to Appendix B of this EIS/EIR and in response to Comment No. 110. The preliminary design is the Applicant's proposed design. The final design is not necessary to analyze the environmental effects of a proposed project or its individual components. If the project is approved by BLM and Imperial County, these details will be finalized during subsequent permitting. The design described in this EIS/EIR is based on preliminary discussions with the staff of permitting agencies, including the LEA, RWQCB, CIWMB, and APCD. This design will not be finalized until the WDR, SWFP, and Authority to Construct and Operate a LFG Control System are issued by these agencies. Please see response to Comment No. 461.

The hand written sheets including various calculation (included in Appendix 8:H.2-20 to 8:H.2-32) appear not to indicate what if any piped LCR system is intended nor the intended spacing.

Need for perpetual care for dry-tomb lined landfills

471 Regulations of the CWRCB and CIWMB require protection of groundwater quality and that the "post-closure maintenance period shall extend for as long as the wastes pose a threat to water quality." (Chap. 15 Article 8, Sec. 2580(a).) Furthermore,:

> municipal solid wastes today contain, and will contain in the future, a variety of hazardous heavy metals such as cadmium, mercury, and lead, and inorganic salts, non-degradable organics, and other constituents that are leachable on contact with moisture. These components typically occur in municipal solid waste landfill leachate in concentrations that can pollute very large amounts of groundwater above drinking water standards. These contaminants do not decay; they will be in a landfill that remains dry, forever. Therefore, the post-closure protection period for landfills in California... must be evaluated for their ability to pollute groundwater at any time in the future - forever. This means that containment systems (caps, liners, leachate removal systems, etc.) must function perfectly forever, and in some respects function beyond their design capabilities. (Lee & Jones 1991:5-6.)

Will the landfill design (cap, liner, leachate collection-removal system, etc.) prevent leachate from being formed in the landfill and prevent leachate from leaving the landfill through the liner system for as long as the wastes in the landfill represent a threat to groundwater quality, essentially forever? What documentation supports any DEIS assertions?

How much moisture can be transmitted through the cap annually if the design specifications are achieved in the construction, with the anticipated cap permeability increasing with age? What is the total amount of leachate that can be generated over a wet month period for the wettest month on record anywhere in Imperial County and/or for the wettest month that can be reliably estimated? Please include the rainfall amount used in the calculation. How can one reliably predict the annual or maximum credible daily rainfall for the next 100 to 200 years and thereby maximum credible leachate formation?

Desiccation cracking & differential settling

472 Desiccation-cracking in compacted soil layers has occurred in dry climates, such as southern California, during months with little or no precipitation. (Lee & Jones 1991.) Differential settling of solid waste including compacted solid waste is a normal landfill occurrence and can also cause cracks in the compacted soil layer of the cap. How will desiccation cracks and differential - settling cracks in the landfill cap be detected and remediated? What is the plausible worst-case amount of desiccation cracking and differential settling cracking expected in the compacted soil layer in the cap? What is the associated plausible worst case scenario

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Response to Comment No. 471

Please see responses to Comment Nos. 110 and 466. This EIS/EIR analysis is based on data that represents average rainfall and increased rainfall as experienced in 1992. These assumptions were reviewed by the U.S. EPA, RWQCB, BLM, County of Imperial, and independent consultants, all of whom agreed that assumptions were appropriate. Based on these assumptions, no leachate is expected to be generated by the proposed landfill, except in the case when rainfall hits uncovered or minimally covered portions of the liner.

Response to Comment No. 472

Please see response to Comment No. 110. The final cover for the proposed landfill would consist of the following:

- For the top areas, an approximately two-foot thick layer of soil covering an FML, covering a two-foot thick compacted layer of soil; and
- For the side slopes, compacted berms at least seven feet thick.

Since these compacted soil layers would have permeabilities of at most 10^{-5} cm/sec, clay is not proposed. Excessive drying of the compacted soil layer would be prevented by overlying FML. Further, the compacted soil would be more flexible than a clay layer making the soil more useful in an area that likely would experience some differential settlement.

Compacted landfill areas would be inspected regularly (e.g., three to six months) to assure no damage to the cap and proper drainage. Based on the flexible landfill cap and relatively flat side slopes it is not expected that damage to the cap resulting in substantial infiltration would occur. Weather variability is not expected to have a noticeable affect on cap performance.

increase in moisture transport (based on Appendices D and F rainfall data and data from 1976 and subsequent hurricanes) into the landfill that will result? Have these estimates been included in the estimates of the amount of leachate that can migrate from the landfill? Have impacts of El Nino and changes in jet stream induced weather variability been considered?

473 Paying for costs of perpetual care of lined landfills

What will be the cost of perpetual care of the cap, including its periodic total replacement? Who is going to pay these costs? Are funds going to be set aside as part of the fees of waste disposal or will the costs be passed on to future generations so this generation can have cheaper-than-real-cost garbage disposal? Will funding be adequate if because of technical or economic difficulties, including non-profitability, the LF closes prematurely?

474 Leachate composition

What is the expected composition of the leachate in the proposed landfill? About 1000 new chemicals are being developed each year with more than 65,000 chemicals used in US commerce today. Only about 200 are regulated and monitored for MSW leachate contamination. (Lee & Jones-Lee 1994b:13.) Of particular concern in MSWLFs are the chlorinated solvents and aromatic compounds. Studies in Texas (Brown & Donnelley 1988 cited in Lee & Jones-Lee 1994b:11) have indicated that MSWLF leachate is only slightly less hazardous than that from hazardous waste LFs. Constituents of concern in MSWLF leachate have been characterized as "conventional pollutants" resulting in high biological oxygen demand (BOD) and constituents that are the result of biochemical/chemical reactions which lead to formation and solubilization of constituents not normally in groundwater. For example, vinyl chloride is the result of anaerobic bacterial dehalogenation of chlorinated solvents such as TCE and PCE. (Lee & Jones-Lee 1994b:11-13.) "Non-conventional pollutants" are those uncharacterized materials which contain organic carbon with unknown risks and unknown transformations in the MSWLF, and "priority pollutants " including heavy metals, and the monitored organic compounds and solvents including those in HHW. (Lee & Jones-Lee 1994b:13-14.) Because the application of the term "hazardous" or "non-hazardous" is often arbitrary, the result is that hazardous chemicals "are present in MSW at concentrations just under the arbitrarily-developed "hazardous waste" designation concentration limit." (Lee & Jones-Lee 1994b:15.)

475 Systems monitoring and repairs

How will the integrity of the caps, liners, leachate collection and recovery system and landfill gas systems be examined and damage assessed after a seismic event of any magnitude? If problems are detected, how will it be possible to determine the precise location of a problem? Will the waste have to be removed to remedy the problem? If so how would waste removal and repairs be performed? Where would the removed waste be placed and/or replaced? Would costs be covered by standard liability insurance or trust funds as part of a financial assurance package? Will sufficient funds be paid up front? What are anticipated costs in

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 473

Arid Operations would submit preliminary closure and postclosure maintenance plans based upon the requirements of CCR Title 14 and Title 23 and Federal RCRA Subtitle D. These plans would include a cost estimate for the condition where the maximum cost for closure of a landfill occurs during the facility's estimated 100-year life. A post-closure cost estimate is required to be submitted based on a 30-year postclosure monitoring period after completion of landfilling. Landfill closure and post-closure monitoring period would be financed as described in Section 2.1.19 of this EIS/EIR. Even after the postclosure monitoring period, the owner of the property would be responsible for any environmental impairment from the closed landfill.

Response to Comment No. 474

If leachate exists, it would probably contain inorganic ions such as chloride, sulfate, carbonate, sodium, magnesium and calcium. It would probably also contain numerous organic compounds, the nature of which would be determined by the MSW residue present in the landfill. The key here is that leachate is not expected to be created at the proposed landfill, as discussed in the Response to Comment No. 110, because of the combination of cover design and high evaporation rate relative to the heaviest rains measured at the site. Without leachate, constituents from the landfill could not escape to the surrounding environment, except as a volatile component of LFG. LFG would be controlled as described in this EIS/EIR. Therefore, impacts would not be significant.

Response to Comment No. 475

Please see responses to Comment Nos. 110, 193, and 203.

1994 dollars for such remediation?

476 **Responsibility for monitoring & remediation if/after owner/operator is released from responsibility**

If the owner/operator is relieved of responsibility for post-closure maintenance 30 years after closure, who is responsible for groundwater remediation if the landfill is found to be polluting groundwater after the owner/operator's 30 year responsibility is terminated? Who will be responsible for cover repair and maintenance in perpetuity to reduce flow of moisture into the landfill in order to try to minimize further leachate generation? What financial assurances exist for potential but unknown corrective actions, off-site damages, or other liabilities which may occur after the established post-closure period? The GAO in 1990, suggested that no such financial assurances exist. What state agencies are responsible for determining when - or if ever, the owner/operator should be released of financial obligations for maintenance and corrective actions?

Sec. 3.1.2.2 WATER RESOURCES AT THE PROPOSED LANDFILL SITE

477 DEIS Sec. 3.1.1.2 discussion of surface water and groundwater resources at the proposed project site is incomplete and inadequate because much monitoring data which should be available and included in the DEIS text and tables is conspicuously missing. Also see discussion elsewhere about missing rainfall data.

Groundwater monitoring data is missing

Since "Ground water and vadose zone conditions at the [Mesquite Mine] site have been monitored since 1985 in compliance
478 with RWQCB requirements" (Appendix B 2-1), why doesn't up-to-date monitoring data occur in Tables 3.5 or 3.6 (Appendix B) and in the DEIS itself? DEIS text states that "wells provide up to about 10 years of groundwater level data, including data prior to and during the drought of the late 1980s." (DEIS 3-29). However, DEIS Table 3-4 provides no data on groundwater levels other than initial completion of drilling water levels. DEIS and Tables 3-6, 3-7 do not contain comprehensive water quality data from 1985 to present. Although Filler (6/8/94) stated that there has been a continuing program of groundwater monitoring, the complete monitoring data could not be found in Appendix B. Where is it, why wasn't it included in the DEIS or Appendix B?

479 Water from an aquifer with a hydraulic connection to groundwater beneath the landfill, Amos-Ogilby-East Mesa Basin(s), at present and any time in the future, is suitable or potentially suitable for municipal and domestic water supply purposes (SWRCB 1988). Domestic supply also includes those domestic uses not requiring potable quality water.

The assertion that "water quality has consistently failed to meet certain drinking water standards" during the monitoring time (DEIS 3-38) raises a curious question about the inclusion of a 500 mg/l standard for total dissolved solids for drinking water when staff of the County's Environmental health services Dept. (including Wolf, Quick and Johnston) have all stated that the current

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Response to Comment No. 476

The Applicant would be required to provide financial assurances as required by law to provide for closure, post-closure care, and corrective action of the proposed landfill. The law requiring financial assurance was passed in response to federal government concerns that landfills are closed and maintained by the owner and that any necessary corrective action can be taken to protect the environment. Comment No. 113 indicates that a 100-years post closure care period may be required by the RWQCB; however, the exact timeframe has yet to be established.

After post closure, the landfill property is not expected to pose a threat to the environment. The landfill would be continuously monitored during operation and post closure and potential threats to the environment should be identified and addressed at that time. If for some unknown reason the landfill does pose a threat to the environment after post closure, then it is reasonable to expect that at that time, which could be 130 years into the future, the landfill owner would be responsible under federal and or state environmental statutes for continued protection of the environment. Under current law, past and present land owners and/or operators may be held responsible for contamination of the environment from a source located on their property under federal and/or state environmental statutes and in addition the site may be deemed a nuisance and the owner may be subject to civil suit and payment of damages or injunctive remedy requirements if adjacent properties are adversely impacted.

Response to Comment No. 477

Please see response to Comment No. 172 and the following responses to specific comments on ground water and surface water.

Response to Comment No. 478

Please see response to Comment No. 136.

Response to Comment No. 479

Please see response to Comment No. 136. The requested information on marine or brackish formations is not necessary to determine the environmental effects of the proposed project.

allowable potable standard is 1000 mg/l. According to the criteria in DEIS Tables 3-6 and 3-7, the water distributed by Imperial County cities would "fail to meet drinking water standards". That the water quality is suitable for treating for drinking water purposes is evidenced by the fact that "Gold Fields Operating Company (GFOC) treats this water by a reverse osmosis process prior to its use for drinking water at the Mesquite Mine." (DEIS 3-45).

According to Appendix B Table 3.6 (and DEIS Table 3-6), only 3 wells have TDS in excess of 3000 mg/l and many of the monitored wells had a level of total dissolved solids well within the drinking level standard limit of 1000 mg/L. Indeed, many wells with TDS levels in excess of 1000 mg/L had a water quality better than that of a number of individual domestic wells tested by USGS within the Ocotillo-Coyote Wells Groundwater Basin, wells which were and/or are being used for domestic drinking water purposes. In the Ocotillo-Coyote Wells basin the underlying geological formations play an important role in groundwater quality. The existence of old marine or brackish formations is often not apparent at the surface. Is the same true for the Amos-Ogilby basin?

Is monitored groundwater quality decline seen in DEIS associated with Mesquite Mine operations?

480 Why were no recent measurements of water quality for wells in Table 3.5 and Table 3.6 (Appendix B; or DEIS Tables 3-7 and 3-6) included? Two wells had water quality data for 1991 and 5 in 1992, but most other wells showed no data more recent than 1985 or 1986. Why? Why doesn't either table indicate what lab performed the water quality analysis? Either Table 3.6 (Appendix B) contains erroneous data or there are serious questions to be raised about the validity of TDS data for wells GW-1, GW-4,and GW-5. Well GW-3 exhibits a marked deterioration in GW quality from 1985 to 4/94, but no analysis of constituents is included for 1992 and no follow up was made. Why?

Wells GF-1, GF-2 and GF-3A have all exhibited a decline in water quality from the original tests in 1982, 1982 and 1986. (Appendix B Table 3.5; DEIS Table 3-7.) Why haven't monitoring data since 1986 been included for wells GF-1 and GF-2? Well GF-3A exhibits a shocking deterioration of water quality from 1069 mg/l in 1986 to 2100 mg/l in 1992. Why is no monitoring data from this well closest to the gold mine included? (Appendix B, Fig.3.2 well locations.) What are the 1993 or 1993 water quality data for <u>all</u> wells included in Tables 3.5 and 3.6(Appendix B; or DEIS Tables 3-7 and 3-6)?

Why doesn't Table 3.5 (Appendix B; or DEIS Table 3-70) contain any information about the three monitoring wells (MBH-1, MBH-2, and MBH-3) (DEIS 3-38) located in the immediate vicinity of the three Gold Fields Mesquite Mine production wells (GF-1, GF-2, and GF-3A) on DEIS Fig. 3-12 showing locations of wells and borings of the "Mesquite Well Field"? How have water levels and water quality of all six wells changed from initial completion through 1993 monitoring periods? Why isn't this information included when

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

<u>Response to Comment No. 480</u>

Please see response to Comment No. 136. A check of the technicians field sheet showed that the data for specific conductivity and TDS for July 16, 1991 of Well GF-3A was reversed inadvertently. The value for specific conductivity on that date should be 2,100. The value for TDS on that date should be 1,092. These data were reversed in the Draft EIS/EIR. They have been corrected for the Final EIS/EIR. There is no significant trend of declining water quality in GW-3 and GF-3A.

The Mesquite Mine does not perform testing on the wells labeled MBH. They are used to monitor ground water elevation in connection with pump tests to confirm water yield for the Mesquite Mine Well Field.

Several labs were used to perform the water quality analyses over the course of the 11-year period during which data were collected. Though different, the labs followed standard chain-of-custody procedures and testing protocols to assure accurate sampling results. The RWQCB has reviewed these data and found the data to be acceptable.

A comparison of ground water elevation for five of the six Mesquite Mine Wells is provided in Appendix B of this EIS/EIR for the period when they were installed in 1985 and the period when a re-evaluation of the well data was performed in 1992 to 1993. As indicated, the elevations have remained essentially constant.

this is the area anticipated as source for groundwater for proposed LF operations (DEIS 3-37)? Where is the background water quality monitoring data?

Contrary to the assertion that "significant changes [in groundwater quality] have not occurred over time" (Appendix B 5-6), our review of Table reveals that both Table 3.5 and 3.6 (DEIS Tables 3-6, 3-7) indicate what appears to be very significant deterioration of groundwater quality in wells GF-3A and GW-3. What is the explanation for decline in groundwater quality, and why are no monitoring data included after the initial recorded deterioration in quality? Is the degradation in groundwater quality related to mining operations or natural variation in groundwater quality? What data support your conclusion?

481 Groundwater quality and potential future uses: Because the water can be treated for use as potable water as is done by GFOC for the Mesquite Mine (Appendix B 5-7), the groundwater basin would be a Class II basin by US EPA standards of the 1991 Final Rule for MSWLFs and classified as "suitable or potentially suitable" for municipal and domestic use according to Coulter (6/14/94) and SWRCB Resolution 88-63. Successful operation of the Mission Basin Desalting Facility in Oceanside (Sherman 6/13/94) further supports the conclusion that water resources of the vicinity are treatable for future municipal and domestic uses.

482 Sequence of LF segment filling
What is the intended sequencing of filling of landfill segments depicted in DEIS Fig. 2-9 (p.2-16)? Will it begin with the NW corner where groundwater is closest to the surface (depth to groundwater 140 ft.) and therefore the potential for early pollution by leachate infiltration in the event of liner system and LCRS failure? Please indicate sequence numbering on Fig. 2-9 depicting proposed LF cells.

483 Groundwater monitoring well system inadequate: Why are there only 2 groundwater monitoring wells, 1 at the SW corner of the proposed LF and the other at the NW corner (Appendix B 3-12)? Drilling of these wells indicated the proposed LF overlies fractured rock. What is the proposed location of other GW monitoring wells near the proposed project and between well field and other existing wells and between other privately owned lands? How could so few wells and such widely spaced vadose zone wells detect any fingers or pulses of leachate migration from discrete points of leakage? There are concerns with or without use of enhanced LFG generation.

484 Recharge Amos-Ogilby-East Mesa basin
Estimates of recharge for the Amos/Ogilby and East Mesa areas is presently approximately 100,000 Acre feet/year and recharge had been about 230,000 acre feet/year prior to the lining of the Coachella Canal in the early 1980s, and 20,000 acre feet/year of recharge from underflow from the Colorado River. (Appendix B 5-2.) What are recharge estimates if additional portions of the All American Canal are lined? How will reduced recharge impact long-

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 481

Please see response to Comment No. 136

Response to Comment No. 482

Please see response to Comment No. 428.

Response to Comment No. 483

Background ground water quality data would be obtained using LGW-1, LGW-2, GW-1, and GW-4. Additional wells may also be used, and detailed ground water quality monitoring will be developed as part of permitting activities with the RWQCB for the WDRs. Please see response to Comment No. 110. The configuration of vadose gas monitoring wells is based on a calculated zone of influence for a vacuum placed on each well to obtain a monitoring sample. The 25 wells proposed for the initial landfill segment are proposed to provide a wide coverage for potential leachate and/or gas migration, while also assuring that testing would occur near any fractures that could exist in the Bear Canyon Conglomerate bedrock. The wells would be 50-feet deep to assure that the vacuum would not cause negative pressure under the liner, which could create favorable conditions for downward migration. Ground water monitoring wells would include background monitoring wells, plus one additional well along the boundary of each downgradient perimeter landfill segment. This spacing is proposed to assure coverage of ground water downgradient of the landfill based on the anticipated spreading that would be expected as any release moved through the 110- to over 400-foot deep vadose zone. The proposed configuration has been submitted to the RWQCB as part of preliminary permitting activities. It will be given extensive technical review as part of these permitting activities.

Response to Comment No. 484

The cumulative impacts of lining the All American Canal were found to be not significant in Section 4.7.3.1 of this EIS/EIR. To be conservative, the calculations of aquifer drawdown predicted due to withdrawal of ground water from the alluvial aquifer for the proposed landfill assumed a zero recharge condition as discussed in Section 4.1.2 and Appendix B of the Draft EIS/EIR. Therefore, a reduction in recharge would not result in greater estimates of drawdown or impacts from those provided in Draft EIS/EIR.

term groundwater levels and groundwater gradients of the Amos-Ogilby basin? How will reduced recharge impact long-term availability of groundwater resources for the duration of the proposed project's 100 year life? How will the cumulative impacts of project withdrawals and reduced recharge impact private and BLM wells down-gradient of the proposed project?

485 **Extractions from Amos-Ogilby-East Mesa underestimated in DEIS**

Extraction, especially for agriculture, in Mexico is estimated at 180,000 acre feet/year from the Amos/Ogilby/East Mesa Basins. (Appendix B 5-4.) Even excluding the potential Mesquite Mine/proposed LF extraction of approximately 4,000 acre feet/year, the extraction exceeds the estimated recharge of 100,000 acre feet/year (Appendix B 5-2). It appears, then, that the basin is overdrafted. Why then does the DEIS include the statement that "the Amos-Ogilby basin would continue to experience a large, net recharge of water" (DEIS 4-6)? Why does the DEIS discussion fail to include the Appendix B (p.5-4) discussion of groundwater extractions within the Mexican portion of the basins? In addition to decreasing recharge because of canal lining, if extraction levels in the southeast portion of the basin continues at present levels or increases, will there be a potential reversal of gradient at some point in the future? Why does the DEIS fail to discuss the cumulative impacts of groundwater extraction by the proposed project in addition to Mexican extractions and potential extractions for the "New Town" of Felicity described in Imperial County's 11/93 General Plan Update and Bureau of Reclamation and IID East Mesa recharge and pumping proposals in addition to mining withdrawals?

USGS 1977 estimates of transmissivities in the Ocotillo-Coyote Wells basin were proved to be overestimates based on subsequent USGS monitored drawdown associated with pumping rates of less than 100 Acre feet/year in the southern portion of that basin. Appendix B (p. 5-5) indicates widely different transmissivities at three different wells. What is the likelihood that additional long-term well studies throughout the Amos-Ogilby basin will reveal different transmissivities and storage coefficients? How would this information alter the potential environmental impacts of the proposed project and its long-term groundwater withdrawals and other allowed withdrawals in addition to withdrawals for Mexican agricultural uses?

486 **Aquifer subbasin beneath proposed landfill**

The subbasin beneath the LF footprint flows from NW to SE into the Amos-Ogilby basin. (Filler 6/8/94.) What hydrogeologic evidence was used to define the characteristics and extent of the subbasin beneath the proposed site?

Aquifer characteristics of the Subbasin directly beneath the proposed LF footprint indicate a higher permeability in the upper layers (up to 80 ft/yr) (DEIS 3-7, Appendix B 5-6), with permeability decreasing at depth to less than 1 ft/year at 100 ft depth. Why were the Packer test result data from well boring ESI-1 (Appendix B Table 3.2) directly beneath the proposed LF footprint

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 485

The area where Mexican irrigation water is extracted is a southern extension of the East Mesa Basin as illustrated in Figure 2 of Appendix B.1 to the Draft EIS/EIR. That portion of Mexico is not connected to the Amos/Ogilby Basin. Therefore, the conservative case provided in the Draft EIS/EIR, assuming the Amos/Ogilby and East Mesa Basins are not connected, would not be affected by the Mexican irrigation water extraction. The potential impacts due to the proposed project pumping for that conservative case assumed no net recharge.

The estimated amount of recharge for the larger, combined Amos/Ogilby and East Mesa Basin areas provided on page 5-2 of Appendix B of the Draft EIS/EIR should have been 123,000 instead of 100,000 acre-feet per year. The 123,000 volume is made up of the 3,000, 20,000 and 100,000 estimates from local recharge, the Colorado River, and All American Canal, respectively. This value is on the order of the estimated amount of water extracted in Mexico considering a net extraction rate (pumping minus natural recharge at Mexican portions of Colorado River, etc.) of 180,000 acre-feet per year, considering that about 1/3 of irrigation water reinfiltrates back into the alluvial basin. Therefore, the estimate of proposed project impacts provided in the Draft EIS/EIR for the larger combined basin considering no net recharge would also be appropriate. Further, if the Amos/Ogilby, East Mesa, and Mexican Basin areas are all connected, the volume of stored ground water would be much greater than the 121,000,000 to 229,000,000 acre-feet discussed in the Draft EIS/EIR. As a result, the proposed project pumping would represent even a smaller portion of stored water than the 0.2 to 0.3 percent estimate discussed in Section 4.1.2.2 of the Draft EIS/EIR.

Issues associated with potential lining of the All American Canal are described in Section 4.7 of the Draft EIS/EIR.

The analysis of cumulative impacts does not discuss the Felicity Specific Plan Area. Under the Specific Plan Area land-use designation, the County must approve a specific plan before development can occur. At present, no specific plan has been proposed for the Felicity Specific Plan Area. Analysis of the impacts from this area is thus too speculative to be meaningful. Because information regarding this project is unavailable, the Draft EIS/EIR's analysis of cumulative impacts need not consider this project. (Pub. Resources Code, § 21100, subd. (d).)

Response to Comment No. 485 (Cont'd)

It is common for transmissivity values to vary in large alluvial basins because the grain size of the deposited soils varies depending on location with respect to the source of the alluvium and climatic conditions where the erosion carrying the soil to its present location varied over geologic time. These types of natural variations would have no effect on the proposed water supply, which includes three separate wells, each capable of providing the required water individually.

Response to Comment No. 486

Please see response to Comment No. 136. The substantial number of boring sand wells that have been completed at the proposed landfill site indicate that the Bear Canyon Conglomerate and underlying basement rock have generally consistent characteristics throughout the area. The permeability tests performed for ESI-1 and ESI-2 are listed separately in Table 3-5 of this EIS/EIR and are presented separately in Tables 3-2, 3-3, and 3-4 (falling head test for ESI-2). The range of permeabilities for these wells are thought to be representative of permeabilities that would occur in the landfill area. No additional permeability tests were performed.

(DEIS Fig. 3-12) and well boring ESI-2 (Appendix B Table 3.3) at the SW corner of the LF footprint (DEIS Fig. 3-12) combined (DEIS 3-38)? There appears to be considerable difference in the permeability of soils at the two well sites which are approximately 2 miles apart (DEIS Table 3-5). Were permeability tests done for the area of the NW corner of the LF footprint where the depth to groundwater is only 140 ft.? With what results?

If the permeability beneath the proposed LF footprint is as indicated (ESI-1 in DEIS Table 3-5), why wouldn't any leachate that escaped from the LF after the liner system deteriorates (at whatever time after initiation or completion of LF operations) eventually be able to migrate into and through soil of this permeability? Why does the DEIS dismiss the potential for subsurface migration of leachate contaminants when engineers such as Lee (1994) indicate that even at the proposed site leachate would be generated and when enhanced LFG generation (DEIS 2-40, 2-44, 4-76, 4-109 to 4-113) is obviously contemplated.?

Why wasn't the 1993 "expanded baseline monitoring at Wells GW-1,-2, and -4, and LGW-1 and -2" to obtain baseline background chemistry (Appendix B 5-7) included in either Appendix B or DEIS itself? Were the monitoring tests performed? What were the results? Why wasn't remonitoring (at least for TDS) done in 1993 or 1994 for all wells included in DEIS Tables 3-6 and 3-6, especially those wells where groundwater quality had deteriorated?

As experience in the Ocotillo-Coyote Wells Groundwater basin in the SW portion of Imperial County reveals the expected transmissivities (with model projections based on aquifer pump tests) and drawdown and cones of depression have not been borne out by 17 years of subsequent USGS groundwater level and quality monitoring. (Skrivan 1977; and USGS semi-annual water level monitoring.) What guarantees are there that the transmissivity estimates, and drawdown characteristics of the Amos-Ogilby basin (Appendix B 6-3) are likely to be any more accurate that those earlier USGS projections of transmissivity and drawdown in the Ocotillo-Coyote Wells basin where impacts of even a 100 acre foot/year pumping from one well caused a 67 ft. water level decline in the pumping well in less than 5 years in one part of the basin?

487 **Groundwater monitoring wells - locations for quality & level**

Proposed project plans for groundwater monitoring are inadequate, particularly in light of proposals for enhanced LFG generation and the accompanying increased leachate production. How many, if any, intermediate monitoring wells and at what locations would be placed between the Gold fields Well field and the Boardman, Glamis and BLM ranger wells to monitor water level changes? Will the project applicant/partners pay the additional costs of pumping at greater depths for the existing downgradient wells? If not, why not? If electrical rates continue to increase, costs of pumping from greater depths could be considerable and could represent a significant change because the anticipated additional drawdown would be 10% of the current 114 foot depth to water at the Ranger well.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 487

The proposed ground water monitoring plan that is the basis of this environmental analysis is conceptual, subject to approval by the RWQCB. It is adequate for purposes of environmental analysis. Please see responses to Comment Nos. 110, 142, and 409.

488 Groundwater impacts on undeveloped private lands nearby

DEIS discussion of groundwater impacts is inadequate because it fails to include discussion of potential water quality impacts and potential cone of depression on a nearby section of land which is privately owned and may be considered for development in the future. From DEIS Fig. 3-12 it appears that the Gold Fields Well Field is located in T13S R19E Sec. 33. How would the projected maximum allowable pumpage of about 4000 acre feet/year impact the groundwater levels underlying the privately owned Sec. 36 in T13S R19E (BLM Midway Well Desert Access Guide #21.)? These lands are much closer than the Glamis, Boardman and BLM Ranger station existing wells. What is the projected lowered groundwater levels at these nearby private lands?

What are the potential groundwater quality impacts of such continued large withdrawals of groundwater when one well GF-3A has exhibited such a marked deterioration of water quality indicated in Appendix B and referenced elsewhere herein? Why wouldn't continued pumpage be seen as creating an adverse impact on the potential uses of these private parcels? These private lands are designated Recreation/Open Space and mobile homes and RV parks could be permitted according to the County's Plan.

In addition to reverse osmosis, solar distillation is used by a number of Imperial County residents to distill groundwater and Colorado River water to improve water quality. Therefore, passive solar distillation must be considered as a low cost alternative to render Amos/Ogilby basin groundwater potable and affordable for residential use where electricity is not available.

489 Groundwater contamination: Landfill Gas

What is the potential for escape of LFG to reach the groundwater table if undetected? Appendix B (p.6-4) explanations of why there would be no groundwater contamination due to leakage of stored liquids in above ground tanks, requirements for remediation of spills and LF design to deter downward migration of contaminants are not particularly reassuring after a review of the reported problems and violations at other Western Waste Industries transfer stations and landfills reported in the Texarkana Gazette and Los Angeles Times and given the applicability of Murphy's Law.

In discussing potential leachate contamination of groundwater, why doesn't DEIS (4-9 to 4-11) include what Appendix B:6-5 identified as a "potential threat for migration of leachate through vadose zone to subbasin groundwater associated with leachate enhancement"? Why wouldn't LFG enhancement also increase the potential for impacts to groundwater quality by downward migration of VOCs migrating along with LFG because of the large area of the landfill (DEIS 4-11)? The VOCs could dissolve in groundwater exposed to LFG (Appendix B:H.1-5). Wouldn't this potential problem be exacerbated by LFG enhancement as the natural degradation of system components occurs with increasing age and exposure to various chemical compounds in MSW residue leachate, VOCs and LFG? Why then, does DEIS indicate that transport of VOCs to air and ground would be avoided by collecting a "majority" (but not all)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 488

Section 36 in T13S, R19E is above the main alluvial aquifer and would be expected to have conditions similar to those at the Mesquite Mine well field. As a result, the aquifer at that location would be at least several hundred feet thick and wells drilled into that material could be expected to produce 2,000 gpm or more each. The maximum drawdown at Section 36 after 100 years of pumping the Mesquite Mine wells would be on the order of 5 to 20 feet, based on extrapolation of the drawdown predictions for existing vicinity wells shown in Table 4-1 of the Final EIS/EIR. The impact of this amount of drawdown on the potential for extracting water at Section 36 would be essentially zero.

Please see response to Comment No. 480.

Use of reverse osmosis, as is proposed for this project, for treatment of water from the Amos/Ogilby Basin would not create significant environmental impacts. Though not proposed, solar distillation would also not create significant impacts. Use of solar distillation equipment would require only minor modification of permits, if it is ever proposed.

Response to Comment No. 489

Please see responses to Comment Nos. 110 and 409. The perimeter gas monitoring wells would be 1,000 feet apart, along the perimeter of the landfill footprint. Twenty-five interior vadose wells, spaced 300 feet apart, are proposed for the initial landfill segment. This array of wells is designed to have a radius of influence to assure maximum coverage for LFG and leachate detections. The RWQCB, CIWMB, and the County have given preliminary approval to this design and agree that it would be adequate to detect leaks and migrations. Furthermore, no adverse comments on this design were received from regulatory agencies.

LFG (DEIS 4-41) when only an 80% LFG collection efficiency is assumed (DEIS 4-66)?

The location of vadose zone LFG monitoring wells 1000 feet apart (DEIS Fig. 2-20) appears inadequate to detect LFG or VOCs in the unsaturated zone given the probable pulse-like rather than plume migration of any releases of LFG or leachate from a lined landfill. What spacing of vadose monitoring wells is necessary to detect point source leaks and migrating fingers of pollution from a lined LF? How would monitoring under the center of the landfill footprint for releases of leachate or LFG be done?

490 Partners' records of landfill operations elsewhere

Have SP Environmental systems ever operated a MSWLF of the magnitude proposed? If so, where and when, for what duration, what type of materials and what daily capacity is accepted? Has Gold Fields Mining Corp. ever operated a MSWLF of the magnitude proposed? If so, where and when, for what duration? What is the daily quantity of inert materials accepted at the "landfill" at the Gold Fields mine site pointed out by Filler as an example of landfill operating experience? (Filler 6/8/94.) Has Arid Operations Inc. a Gold Fields subsidiary (the Applicant) "hired by the partnership to develop and operate the landfill" (DEIS 2-1) ever previously operated a MSWLF of the proposed magnitude before? If so, where and when, for what duration? We expect that leaves Western Waste Industries with most previous landfill operating experience.

What are the daily capacities, landfill size, opening dates of other landfills operated by Western Waste Industries, including El Sobrante in Riverside County? What is the Western Waste history of operations at other sites it either owns or operates? Given the published accounts of experiences in other communities and the no contest pleading to charges of mixing of hazardous waste with MSW residue at a California transfer station, why should the public and/or regulators feel any confidence that the Western Waste performance/compliance record at a remote site in Imperial County would be any better than at its other landfills? Indeed, there are "potential sources of long-term exposure of the subsurface to liquids or LFG migration which could overcome natural conditions which restrict downward migration of contaminants." (Appendix B 6-4.) What is the past and/or present landfill management relationship between WWI and ESI, the preparer of several DEIS appendices for the proposed Mesquite LF?

491 Leachate migration potential

DEIS discussion of this topic is inadequate because it is based on unwarranted and inadequately documented assumptions (including being based on inadequate and/or incomplete rainfall data) and inconsistencies within DEIS text itself. DEIS fails to answer questions raised by these inconsistencies and based on a review of issues by ERF, Lee and others. Furthermore, the DEIS is both inadequate and misleading because it fails to include the rainfall information included in Appendix D-1 for Biological resources and Appendix F for Air Quality. This information is

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 490

Please see response to Comment No. 432. SP Environmental Systems has not operated a MSW landfill, nor has Gold Fields or Arid Operations. Arid's experience operating the Mesquite Mine was similar to the operation of a MSW landfill as described in response to Comment No. 432. Western Waste Industries experience is generally described in response to Comment No. 216.

Since 1992, Environmental Solutions, Inc. has been the landfill engineer for Western Waste Industries in connection with the El Sobrante Landfill. This has included helping to manage site operations, assuring proper design and performance of site environmental controls, and conducting permitting for the proposed expansion. Please see response to Comment No. 432.

Response to Comment No. 491

Please see responses to Comment Nos. 110, 172, 459, 464, and the following responses to specific questions about leachate migration potential.

essential in calculating the probability for leachate generation with MSW "as received" and for MSW with 40% moisture content for LFG enhancement. Why was rainfall data withheld and rainfall information underestimated?

Rainfall data was gathered at the Mesquite Mine site from 1983 to June 1992 (Biological Resources Appendix D-1:13), not merely from 1983 through 1987 as indicated by the Hydrogeology Technical Report (Appendix B Table 4.1 (a table dated 10/28/93)). That Appendix D Mesquite Mine rainfall data indicated that 3 of the 10 years had rainfall in excess of 5 inches/year, that Dec. 93 had 3.14 inches of rain, March 1992 had 4.07 inches of rain. Further, during the first 6 months 1992 rainfall was 7.46 inches before the beginning of: "The usual rain season [which] is from July through January." (Appendix D-1:13, and Table 1 at D-1:14; included as Exhibits H and I herein.) Appendix F (p.2-5) indicates the 1992 annual rainfall was 13 inches. Why was this data withheld from those preparing other technical reports and the DEIS itself? Is 10 years of monitoring data sufficient to predict conditions over a long period of with potentially widely varying conditions, such as seen by the range of annual rainfall from almost none to 13 inches in 1992?

492 Why does the DEIS reference "likely removal of green waste prior to shipment to the LF site" (DEIS 4-9) but fail to indicate the inclusion of "agricultural plant material" (DIES S-20) in its assumption of low moisture content at the proposed LF site? What data indicate removal of substantial quantities of green waste occurs prior to MSW residue transport to proposed LF site? Who checks? What is the most recent CIWMB data for composition of the waste stream of intended generating communities?

493 Why wouldn't moisture infiltrating the MSW residue or soil cover from a rainy period of one day (eg. 1.65 inches on 5/24/94) or several days add to the existing moisture and therefore the potential for leachate formation? Why doesn't the DEIS contain historic rainfall data collected throughout the Imperial County indicating periods of heavier rainfall preceding the years for which data is included in the DEIS? Is the omission of that data an attempt to minimize the apparent potential for single event rainfall infiltration in one evening with 1.65 inches such as 5/24/94 (Mitts 6/8/94) or periods such as March 1992 with 4 inches of rainfall in one month (Appendix D-1:13)?

494 Where are the details of the referenced "proposed leachate surface monitoring ... to further reduce the potential for leachate to escape the underlying vadose zone" (DEIS 4-9)?

495 The estimate that in a "worst-case" scenario that it would take 100 years for leaked leachate to reach the subbasin (DEIS 4-9) means that detection would be unlikely to occur much before anticipated LF closure and therefore might escape detection during Applicant/partner operations and financial responsibility for the 30 year EPA mandated post closure monitoring. Such a prospect (for delayed detection) should be very troubling for residents and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 492

Please see response to Comment No. 359.

Please see response to Comment No. 110 concerning green waste volumes and moisture content. Addition of up to 210 tons/day of agricultural stubble for offsets at maximum landfilling of 20,000 tons/day would hardly change the percentage of green waste occurring in MSW residue. After the year 2000, the additional 210 tons/day of agricultural stubble would change the percentage of landfilled green waste from 8 to 9 percent.

It is anticipated that green waste would be removed from MSW along with other divertable material as required by AB 939. No data is available from the CIWMB to confirm this at this time. Response Figure 12 provides an estimate of MSW diversion through the year 2000 based on the current waste stream composition. Implementation of AB 939 would be conducted by local jurisdictions. Enforcement would be conducted by the CIWMB. Response Tables 14, 15, and 16 provides the most current data from the CIWMB on waste stream composition.

Response to Comment No. 493

To account for the possibility that individual rainfall events might create leachate, actual rainfall events recorded by rain gauges at the Mesquite Mine during the heavy rainfall season of 1992-1993 were used in the HELP modeling of infiltration through each of the temporary cover thicknesses. The largest event was 2.16 inches during February 8, 1993, which exceeds (by 31 percent) the 1.65 inch rainfall event on May 24, 1994. The HELP modeling also included a month with approximately 4 inches (3.94 inches to be precise) of rainfall to look at this larger amount of rain during a longer period (one month versus one day). The infiltrating rainwater was never able to penetrate even two feet below a cover into MSW residue. Please see response to Comment No. 459.

Response to Comment No. 494

Please see EIS/EIR Section 2.1.7.1 and responses to Comment Nos. 110 and 401.

Response to Comment No. 495

Please see responses to Comment Nos. 110, 136, 476, and EIS/EIR Section 2.1.18. Also, please see Comment No. 113 from the RWQCB that indicates a post-closure monitoring period of 100 years may be appropriate for the proposed project. Any leachate that escapes the liner system would be detected by the leachate subsurface monitoring system described in Section 2.1.7.1 of this EIS/EIR. It would take a very short time for leachate to be detected by this system.

elected and appointed officials in Imperial County? What are the likely financial conditions and resources and public will of future generations of Imperial County residents to cleanup pollution emanating from the proposed site after leachate is detected in the subsurface soils at the site? 1000 years for contaminants to reach the Amos-Ogilby aquifer may sound like a long time, but the LF will remain hazardous in perpetuity if kept as a dry-tomb LF. A review of cultural resources in Imperial County indicated a long history of human occupancy and changes in climatic conditions. Is 1000 or 100 years really such a long time? Roman landfills are still producing leachate after 2000 years. (Freeze and Cherry 1979 cited in Jones-Lee & Lee 1993:5.) What data and assumptions were used for calculating the "worst case scenario"? How valid are they likely to be during the future periods of climatic and rainfall variability?

496 What sources support the conclusion that: "During such a long period, contaminant constituents in the seepage water would be naturally degraded and attenuated" (DEIS 4-9.)?

497 **Inadequate Leachate and Vadose Zone Monitoring: Point Source Pulses from lined LFs vs Plumes from unlined LFs**

The DEIS discussion of groundwater and leachate monitoring is inadequate because the DEIS failed to recognize that:

> Unlike the leakage from an unlined landfill, leachate from lined landfills would be expected to be initially from point-sources such as holes in the liner. .... leachate would be expected to migrate as "fingers" rather than as the classical "fan" shape plume. (Jones-Lee & Lee 1993:9.)

Wouldn't any potential for leachate and LFG (and associated VOC) migration (especially with enhanced LFG generation) result in point source pulses or fingers from the lined landfill? With the finger(s) of pollution migrating from a point source leak, it would require literally hundreds of down gradient wells closely spaced (around the landfill footprint perimeter) to have any significant probability of detecting such a finger of leaked leachate (or LFG and VOCs) from a lined landfill. (Jones-Lee & Lee 1993:9.)

> In arid climates with a moderate degree of cover integrity, the release of leachate from the landfill will more likely occur through holes in the liner in discrete, short-term pulses. ....Groundwater quality monitoring programs being developed today typically have a low probability of detecting leakage from lined MSW landfills before significant aquifer pollution occurs. (Jones-Lee & Lee 1993:10.)

Based on this understanding of the characteristics of leachate and vadose zone monitoring of leakage, the proposed few wells depicted for groundwater monitoring of the proposed LF would be inadequate to detect such pulses. How many more wells for groundwater monitoring and LFG vadose monitoring wells and in what configuration, what spacing would be necessary to detect pulses of leachate or LFG and VOCs leaking (from point sources such as holes)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 496

Please see response to Comment No. 136.

Response to Comment No. 497

Please see responses to Comment Nos. 110,136, and 401. LFG and leachate do not migrate away from a liner hole as a point source or pulse. Any possible LFG and leachate migration would occur over a lateral extent that could be detected equal to at least 1,000 feet and hence could not slip between the proposed perimeter probes without detection.

into the unsaturated vadose zone before they reach groundwater below? Why shouldn't more emphasis be placed on vadose monitoring to detect potential contamination before it reaches groundwater?

498 Landfill Gas (LFG) migration potential:
Why doesn't the DEIS (at 4-11) include any reference to the bottom row of LFG pipes at 20 ft above the liner as included in Appendix B 6-6? Is that to be deleted? How would a vacuum be applied to the LFG system (DEIS 4-11)? Where would the LFG monitoring systems within the LF, at the top of the operations layer, and in the vadose zone beneath the LF (Appendix B 6-6; DEIS 4-11) be placed? How, specifically, do such "vacuum probes" function? Are these vacuum probes temporary or permanent? How frequently would monitoring be done? Would the vadose monitoring system underlying the LF be installed prior to the installation of the LF liner system? What is the "low permeability intermediate cover" (DEIS 4-11) intended to be used to minimize infiltration and escape of LFG if there is evidence of LFG escape? How would VOCs be adequately monitored to prevent LFG components from reaching the groundwater? What backup systems are intended in the event of failure of the primary vacuum system for each portion of the LF? Will there be multiple LFG collection systems or just one large LFG collection system at LF closure? How would vadose monitoring wells spaced 1000 feet apart (DEIS Fig. 2-20) be able to detect point source pulses of LFG or VOCs? How long has such technology been used for this purpose and with what effectiveness in similar climates for similar purposes?

499 Migration potential of other liquids at site
What is the procedure for inspection of the liners of the containment for impounded washwater (DEIS 4-11, 4-12) at the proposed site? What is the routine replacement schedule for liners of the washwater impoundment structure?

Of what material will the intended above ground LFG condensate piping (DEIS 4-12) be made? Would these materials be replaced on a rotating schedule to eliminate problems associated with long-term exposure to sun and high temperatures at the site? What are the manufacturer's design specifications and warranties? Are the pipes to be used specially designed of this type of application in this climate? If not, why not?

Of what materials would the above ground waste water containment tanks be made? Again, what are replacement schedules or criteria, manufacturers warranties and design parameters for this type of usage?

500 Short-term storage of recyclables:
What are the limitations to time and volume of the "short-term storage space for recyclable materials" (DEIS 4-12) within unlined portions of the LF footprint? What happens as the proposed 600,000 ton maximum limit (DEIS 2-36) and or the 2 year or other specified time limit as these "limitations" are approached? What would prevent potential contamination of underlying soils from stored materials?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 498

This comment asks a variety of questions related to the migration and collection of LFG. The overall principle is to collect LFG by imposing a vacuum throughout the landfill prism. The sentence on page 4-11 of the Draft EIS/EIR refers to the general vertical spacing between sets of LFG collection trenches. Please see response to Comment No. 401. The lowest set would start at a height of 20 feet above the liner. The LFG collection system is redundant because each collector is surrounded by four other collectors that can extract the LFG if one fails. The vacuum is imposed by blowers at the flare station. The flare station would also have backup blowers and flares to assure continuous operation.

The proposed configuration of LFG monitoring probes and vacuum probes are shown in Figure 2-20 of the Draft EIS/EIR. The permanent vacuum probes are designed to assure that a vacuum is delivered to the lowest layer of MSW residue. The probes would be placed just above the operations layer. The monitoring frequency would be established by the LEA.

The installation details for the vadose monitoring system are not pertinent to their performance or the analysis of environmental impact, but will be described in more detail in permitting documents. These monitors would be installed before the liner and would serve to detect LFG (if present) in the vadose zone way above ground water (response to Comment No. 110).

The low-permeability intermediate cover is at least a 1-foot thick layer of cover soil, as required by CCR Titles 14 and 23, for areas that would not receive additional MSW residue within 180 days.

The perimeter LFG monitoring probes do not need to be spaced closer than 1,000 feet because LFG does not migrate away from the prism as a point source or pulse. Any possible migration would occur over a lateral extent equal to at least 1,000 feet and could not slip between the perimeter probes.

The proposed LFG collection and monitoring technologies have been used in a similar climate for at least a decade at landfills operated by the Los Angeles County Sanitation Districts.

Response to Comment No. 499

The water reclamation plant evaporation ponds would be double-lined and would include a drainage net and sump to monitor for seepage (if any) through the upper liner.

Selection of materials and vendors for the proposed Mesquite Regional Landfill has not been made at this time. However, the aboveground transfer piping and storage tanks would be selected to withstand the sun and high temperatures. The pipes and storage tanks would also be inspected regularly to assure that leakage is not occurring. Specific design specifications and warranties would be identified at the time the materials are selected. Washwater impoundment liners would be replaced as required to protect ground water.

Response to Comment No. 500

It is proposed that up to 600,000 tons of recyclable material could be stored at the proposed site. It is expected that the maximum storage time for each shipment would be two years, but this would be subject to future agreements between the Applicant, the originating jurisdiction, the County of Imperial, and the CIWMB. No specific action would occur as the 600,000-ton limit is approached. As the two-year limit is approached, arrangements to remove the recyclables would be made. Recyclable materials stored on-site would ether be shipped to a market, returned to the originating jurisdiction, or landfilled. The recyclable materials would be certified by the originator as not containing hazardous materials, therefore, no contamination would be expected. Once they are removed from the storage site, the underlying ground surface would be inspected by the Applicant for signs of contamination and any contaminated soils would be either treated on-site or removed for treatment or disposal according to applicable regulations. Random inspections would also be conducted by the County and other regulatory agencies.

The stored recyclable materials are expected to be dry, and not liquids or muds. The phrase "other recyclable materials" was included in Chapter 2 to provide for the storage of materials that are not currently considered recyclable but may be considered recyclable in the future.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 500 (Cont'd)

The agreement between the Applicant, the originating jurisdiction, the County of Imperial, and the CIWMB would establish the framework for determining the fate of the materials. It is anticipated that materials would only be landfilled if a market for their reuse did not exist. The agreement would identify the originating jurisdiction that is responsible for the recyclable materials. This information would be available for public review. No further identification would be necessary.

It is not anticipated that any contamination would occur because the material would consist of recyclable material that has been certified as not containing hazardous materials. The treatment and/or disposal of contamination soils would be conducted according to all laws applicable at the time any contamination is discovered.

Would "recyclable metals" include metals in solution or in muds? Why does the list in the section (DEIS 4.1.2.2) on environmental consequences to water resources omit the "other recyclable materials as identified by the CIWMB" (DEIS 2-36)? Which list is accurate? What other materials are included in the CIWMB list?

What criteria determine whether the "recyclables " would be "returned to the originating community or landfilled" (DEIS 4-12)? Who would do inspections? Will the applicant and partners identify the name of the commercial/industrial source or community source of all MSW residue and recyclable materials imported into the proposed Imperial County site from Southern California or sites outside the state of California? If not, why not?

If soil contaminated by on-site storage of recyclables or hydrocarbon leaks is "treated in situ, removed and treated on-site" (DEIS 4-12), what type of treatment is proposed to be used? What third party certifies clean-up is adequate? To what other site would contaminated soil be sent if it is removed from the site? What are some of the potential contaminants and what specific treatment is required to decontaminate or neutralize contamination of soil?

501 **Potential water contamination along SP Main Line transit routes:** Based on a review of California Public Utilities Commission (CPUC) reports, assurances of no accidents along the SP rail haul route are not convincing. Please list all rail accidents and all derailments since 1970 along the SP Main Line route intended for use to haul MSW residue from Southern California counties and in the event that rail haul of MSW residue enters Imperial County from Arizona or other points to the east. What was the nature and cause of each accident or derailment? (This short 24 year period is but a fraction of the proposed 100 year life of the proposed rail-haul project.)

What anticipated road bed and track maintenance are planned during the 100 year life of the proposed project? What are SP's track and bed maintenance procedures? Will current frequencies be maintained or increased as rail traffic increases? Are any of the CPUC "worst hazards" locations located along the SP Main Line route intended to transport MSW residue to the proposed site? If so, where are they located and what is the nature of the identified hazard?

Are any segments of the rail haul route included in the CPUC's 1992 identified 38 track segments as "potential local safety hazards"? If so, where are they located, and what precautions are planned to reduce the hazards?

What other hazardous materials are routinely transported along the proposed SP rail-haul route? With what frequency (daily, weekly and annually) are other hazardous materials transported along the proposed route? What are the present conditions of the SP track? How many passenger trains /day, week or annually use the same SP routes? What is the anticipated number and frequency of

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 501

Accidents along the SP Main Line are possible. As noted in the Draft EIS/EIR Section 4.1.6.2, only 17 service disruptions have occurred between 1987 and 1992. This time period is more representative of the reliability of the Main Line than periods before 1987 because the track and equipment used during this time period is more representative than the track and equipment prior to 1987. Because it is not proposed that MSW residue be rail hauled from Arizona or other points east, the record of rail interruptions on the SP Mail Line, east of the proposed rail spur, is not relevant.

Minimum maintenance requirements on the rail haul line are regulated by the Federal Railroad Administration (FRA). The main line from Los Angeles and Glamis is inspected two times per week at a minimum. Assuming the number of train trips on this section of track remains relatively constant, the inspection schedule is not anticipated to change, with or without the proposed project.

Rail maintenance is determined based on a schedule set out approximately five years in the future. If routine inspections indicate a specific need for additional maintenance, the schedule is reprioritized to reflect this need. SP is in compliance with FRA track maintenance standards and generally goes beyond what is required.

PUC Safety Hazards

SP is a common carrier and as such transports many types of materials including both hazardous and nonhazardous materials. The safety of transporting these materials is regulated by the FRA. Rail lines must be operated and maintained in a manner that minimizes the possibility of problems. Additionally, rail cars must be constructed according to specific specifications for the various types of materials carried. The specific materials hauled by SP on the Main Line are not relevant to this analysis.

Currently AMTRAK operates three passenger trains per week along the SP Main Line. Please see response to Comment No. 43.

Operating procedures in the event of derailment vary depending on many factors including: location, condition of containers, weather conditions, and loss of containment of a containers contents. A spillage contingency

Response to Comment No. 501 (Cont'd)

plan is described on Table 4-26 of the Draft EIS/EIR. SP maintains a policy to leave any derailment scene just as it was prior to the derailment. Derailments that might result in a container breach and release of diapers to water would be very unlikely, but would be cleaned up according to all applicable regulations and SP's aforementioned policy.

Any derailment would trigger SP involvement, including a single wheel coming off the tracks. Typically if a derailment results in a release of material that may cause an environmental impact, state regulatory agencies become involved in overseeing the cleanup activities to ensure proper mitigation. SP is in compliance with all FRA standards regarding track maintenance, including those track sections that cross bodies of water.

Based on USGS 7.5 Minute Quadrangle Maps that include the proposed Rail Haul Route, approximately 35 'blue line streams' are crossed by the SP Main Line between the LATC and the proposed rail spur.

The precise nature and cause of each derailment along the SP Main Line are not relevant data for this analysis. Rather, this EIS/EIR identifies a general response to mitigate a train derailment. Specific response measures cannot be defined at this time because the nature, location, size, as well as other factors would dictate the type of response.

passenger trains to travel along the SP Main Line Route if passenger rail service between Los Angeles and Calexico/Mexicali is implemented in the near or distant future.

What are the operating procedures in the event of derailment of hazardous or MSW materials release along the proposed rail haul route? An accident or spill or derailment over water could expose human waste (in diapers) including bacterial and viruses in addition to toxic chemicals to water where they could spread rapidly. What special precautions would be taken to prevent such releases? What specific criteria would trigger involvement of various emergency response personnel and agencies in the event of an accident/derailment/spill? What independent third party entity is responsible for certifying that all potential health and environmental hazards have been adequately cleaned up?

In how many places and at what locations does the SP route from other southern California counties potentially generating communities, pass over open water, marsh lands and/or canals? What is the condition of the track and bridging and maintenance schedule at these sites?

Sec. 4.1.2.3 WATER RESOURCES MITIGATION MEASURES

DEIS discussion of mitigation measures is inadequate because details of some mitigation measures could not be found in the DEIS, and because the list of mitigation measures is not consistent with information provided elsewhere in DEIS. See comments elsewhere.

502 What mitigation measures would be able to achieve monitoring under the center of the LF footprint? What is the design of such a system to detect "fingers", "shots", "slugs", or whatever names, point source contamination under the landfill center? Because of the point source nature of origin and travel through the unsaturated vadose zone, it could take years or decades before detection at widely spaced perimeter monitoring sites is achieved. How would monitoring wells under the landfill footprint be replaced after MSW residue and cover material;s are placed over the monitoring wells?

Where are the details of the design for diversion and drainage facilities to accommodate the 100 year, 24 hour precipitation events (DEIS 4-14)?

Agricultural waste:

503 DEIS 4-14 states that only nonhazardous waste defined in CCR Article 23, Chap. 15 will be accepted at the proposed site. DEIS S-20 adds the exception "that agricultural plant material would be accepted ... to provide offsets for the landfill-related air emissions." The acceptance of agricultural plant material "provided it is non-hazardous" is also noted on DEIS 4-15. Which is correct? Why isn't the DEIS consistent? What specifically is meant by "non-hazardous" plant material? What is "hazardous" plant material? Does this refer to pesticide or herbicide or defoliant residue? Who would certify that materials are non-hazardous? If so, who determines what constitutes "non-hazardous" plant material? What criteria are used in making that determination?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 502

Please see responses to Comment Nos. 110, 172, 385, and 497.

Response to Comment No. 503

Agricultural plant material, that may be disposed in the landfill in connection with the offset program, is considered an agricultural waste, not an MSW. Agricultural plant material is not considered hazardous by regulatory agencies. Agricultural plant material could become hazardous, if it were contaminated with hazardous substances. Any such contaminated material would not be allowed in the proposed landfill by the landfill permits. Please note that landfilling of agricultural plant material may not occur, even if these materials are used for air emission offsets. Please see responses to Comment Nos. 1, 283, and 467. Therefore, this EIS/EIR is consistent.

504 If the LF is to operate 24 hours/day, what constitutes "the end of the working day" when MSW residue will be covered with 6 inches of compacted soil (DEIS 4-14)?

Alternative Daily Cover:

505 DEIS discussion of cover materials is inconsistent. DEIS 2-6 makes no reference to "alternative daily cover" (DEIS 4-14)? What specific materials are contemplated or intended as "alternative daily cover" other than overburden or washed ore residues ? Why shouldn't any such consideration or alteration of operating plans be subject to environmental review and public comment along with the DEIS? Does the reference to alternative cover refer to incinerator ash or contaminated soil? If not, to what does it refer? The public deserves to know and to have an opportunity to comment.

There is a major concern about the partners' intent because one partner, Western Waste Industries, has a record of importing incinerator ash transported by Interstate Bi-Modal from Long Beach, New York and Stamford, Connecticut into its landfill in Miller County Arkansas (Pendley. Texarkana Gazette 10/29/90). The Miller County landfill had been accepting "as much as 100,000 tons annually of municipal incinerator ash from northeastern incinerators, according to PC&E [Pollution control & Ecology] records" in addition to petroleum contaminated dirt and industrial waste. (Pendley. 10/6/90.)

506 Alternative Closure Procedures:

Would any "alternative closure procedures" (DEIS 4-15) be subject to public review and comment prior to any approval of a modified WDO from the RWQCB? What are the anticipated referenced "alternative closure procedures"?

507 Sec. 4.1.2.3. MITIGATION RE GROUNDWATER USAGE

What is the potential composition of the LFG condensate to be used as washwater or dust control? How would run-off be prevented from leachate wetted roads? How would biological contaminants be destroyed to prevent them from becoming air-borne inhalants? See discussions elsewhere in these comments.

Sec. 4.7.3.1 CUMULATIVE IMPACTS - WATER RESOURCES

508 The DEIS discussion of cumulative impacts on groundwater resources is inadequate because the DEIS fails to include the amount of groundwater extraction from the Amos-Ogilby-East Mesa basins by all other major users including the American Girl Mining Corporation (DEIS 4-7) Mexican agricultural interests (Appendix B) and Gold Rock Ranch (DEIS 4-7) and the potential uses by the Imperial County General Plan identified "New Town" at Felicity. Furthermore, the Cumulative impacts discussion fails to assess the potential impacts on recharge to the Amos-Ogilby basin if there is additional lining of the All American Canal (DEIS 4-207). How would the total pumpage from the basin associated with the potential reduced recharge associated with canal lining impact drawdown, cone of depression and sphere of influence created by the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 504

Daily cover would be applied at least once during each 24-hour period of operations. This is consistent with state requirements (CCR Title 14, § 17225.17) that landfill cover of 6 inches be applied at the end of each day.

Response to Comment No. 505

A full discussion of alternative daily cover materials is not included because the use of alternative daily cover is not proposed. Please see response to Comment No. 382. Any alternative cover materials would require review by appropriate permitting agencies and, as necessary, a focused environmental analysis. See Table 1-3 of the Draft EIS/EIR. Please see response to Comment No. 216 concerning Western Waste Industries background.

Response to Comment No. 506

Issuance of WDRs is a public process and public review is included. Because the proposed landfill would operate for 100 years, it would be speculative to guess at what if any alternative closure procedures would be implemented. The purpose of the statement that alternative closure procedures may be used is simply a public disclosure that landfill closure may occur in a manner different than what is currently required, given the 100 year operating life of the proposed landfill.

Response to Comment No. 507

The LFG condensate would first receive treatment at the proposed water reclamation plant. The plant effluent would be tested as required by the RWQCB before being used as washwater or for dust control. Runoff would not occur from wetted roads because the amount of water applied to control dust would not produce runoff. This is evident from existing dust control applications at the Mesquite Mine. Biological contaminants would be destroyed to the extent required by the RWQCB. Therefore, impacts would not be significant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 508

Existing users of water in the Amos Ogilby basin or that may potentially impact the Amos Ogilby Basin were considered in the drawdown analysis presented in Section 4.1.2 of the Draft EIS/EIR. This analysis was conservative because it considered a condition of no net recharge of the basin.

Future uses were considered in Section 4.7 of the Draft EIS/EIR to the extent that the quantity of water that would be withdrawn by the future use could be established. Future use of ground water by agricultural interest in Mexico or by Felicity cannot be determined at this time. With respect to future additional lining, the drawdown analysis is based on no net recharge in the basin. Impacts would not be significant.

Gold Fields Well Field extractions over the projected 100 year life of the proposed project? How would these impacts be mitigated?

509 Impacts of groundwater recharge and recovery projects: How would the East Mesa Basin artificial recharge and recovery and pump-out project (DEIS 4-208) in concert with the other above extractions and recharge losses impact drawdown, cones of depression and water quality over the 100 year proposed life of the proposed project? How would the artificial recharge and recovery projects (in concert with reduced recharge because of canal lining and extractions) change the regional groundwater gradient in both the project vicinity and in the vicinity of the existing Gold Fields well Field? How would any changes in the groundwater gradients impact potential water quality or availability in the vicinity of the proposed project or existing well field and other nearby/downgradient wells? What would be the incremental cumulative long-term impacts over the 100 year operating life of the proposed project? What impacts would the potential additional dewatering of the formation underlying the proposed LF and/or potential reversal of groundwater gradient resulting from the recharge and pumping projects have on liner integrity if such projects continue over the lifetime of the proposed LF project? How would these impacts be mitigated?

510 Impacts of LFG enhancement: What would be the additional water requirements for LFG generation enhancement to achieve a 40% moisture content in the compacted MSW residue?

511 Air quality: The dirt covered roadway where the old state Hwy 78 "continues to be used by trucks and vehicles engaged in active gravel mining operations." (Appendix D-1:5.) What efforts are being used to reduce PM_{10}s along this route? What is the contribution of PM_{10} materials to the air quality during and after holiday weekends when OHV activity in the sand dunes is high? Does this require additional roadway wetting?

APPENDIX D: BIOLOGICAL RESOURCES REPORTS

512 Since Appendix D (revised 8/92 and 6/93) was prepared for ESI (the preparer of Appendix B) prior to the 12/93 Appendix B submission date, why wasn't the complete rainfall data to 6/92 included in Appendix B or the DEIS? AOI's Filler (6/8/94) informed the Planning Commission members that there had been continuous monitoring at the mine site.

Appendix D-1 Fig.2 depicts the study of the proposed MRLF site for Botanical and Wildlife resources done by the Office of Arid Lands Studies and the 1992 Supplemental Field Inventory area along the proposed rail spur as including the 4,700 acres S of the Chocolate Mountains and N of State Hwy 78 and the supplemental Field Inventory Study site of 1,400 acres along the proposed rail spur (Appendix D-1:2). This totals 9.53 square miles.

513 Appendix D-3 cites ESI 1992, but no such reference is identified in the list of "literature cited". What is the reference?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 509

The East Mesa Basin project referred to by the commentor is just a proposal for a study. The study would have no impact on the basin or the proposed Mesquite Regional Landfill. The environmental effects of any proposal for a full-scale recharge and recovery project is too speculative to consider in this Response to Comment, but would be studied at the time it is proposed. Generally, however, recharge and recovery projects are designed so that there is no net loss or gain of recharge to an aquifer. Instead, water is recharged when the surface water source (e.g., Colorado River water) is high and recovered when the source is low. This type of operation would not be expected to significantly affect the long-term aquifer gradient or quality conditions regardless of its location. The Mesquite Mine Well Field has been shown to be outside of the Colorado River Aquifer (USGS Water Resources Investigations Report 94-4005); therefore, it would not be affected by changes in the Bureau of Reclamation's management of Colorado River water.

As discussed in Section 4.1.2 and Appendix B of the DEIS/EIR, the relatively minor amounts of ground water in the subbasin beneath the proposed landfill is a result of rainfall infiltration in the Chocolate Mountains, and not water from the main alluvial aquifer to the south. Therefore, very little, if any, changes in ground water levels in the subbasin would be expected due to any fluctuations which may occur in the main basin. In addition, because the landfill is located above bedrock, no local settlement or subsidence of the landfill liner would be expected even if subbasin water level fluctuations were to occur. Accordingly, long-term ground water conditions would have no adverse affects on landfill liner integrity.

Response to Comment No. 510

It is anticipated that the total water requirements of the proposed project and the addition of water to bring the MSW moisture content to 40 percent would not exceed the Mesquite Mine Well Field's permitted 4,033 acre-feet per year. The precise quantity of water is unknown but would be determined during the proposed LFG enhancement pilot program.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 511

Air emissions from sand and gravel extraction are regulated by the Imperial County APCD through the issuance of permits. It is the responsibility of the sand and gravel extractor to comply with permit conditions. It is believed that gravel extraction occurs primarily during the week and not during holiday weekends. The emissions from these activities has not been quantified and are not related to the proposed project. However, these emissions likely are included in the background PM_{10} levels measured at the Mesquite Mine.

Response to Comment No. 512

Please see responses to Comment Nos. 459 and 464.

Response to Comment No. 513

The reference to "ESI 1992" was incorrect, the proper reference is "ESI 1991".

Desert Tortoise Impacts of proposed project (other comments are in impacts section below)

514 What specifically is meant by "noise berms parallel to and 100 feet away from the railroad" to reduce noise impacts to tortoises (Appendix D-3:29)? Where have they been used and with what effectiveness? Would they have any impact on reducing effects of vibrations? What studies have determined that the impacts of noise and vibrations on physiology, behavior, social interactions, and reproductive success on desert tortoises would not be adverse? What studies have been done on the impacts of noise and vibrations (such as that from trains and project activities) on hibernating desert tortoises? What are the long term consequences of such impacts during periods of activity and/or hibernation on the hearing of tortoises, and how would such incremental cumulative impacts of noise and vibrations on hearing impact social interactions?

Exchange Properties:

(See earlier discussion of exchange properties.) Portion of the LF site and RR spur ROW studies by Karl revealed the current densities at 15 to 20 tortoises > or = 140 mm in carapace length per sq. mile. (Appendix D-3:20.) Exchange properties densities were 25 to 50/sq. mi. for PV-1 (Appendix D-4:6); 15 to 25/sq. mi. for PV-11 "with poorer habitat than PV-1, in general, being too open (associated with low cover and forage) to support even a moderate population of tortoises. The habitat is also of slightly lower quality than Section 16, at the Mesquite Mine site. " (Appendix D-4:6.) For locations see DEIS Fig.S-6.

Appendix D-4 states that comments for habitat of PV-11 applies to PV-21. And that the:

> habitat [of PV-21] is too open and the substrate too gravelly for high quality tortoise habitat. Both factors limit potential forage and burrowing potential. The hills in the east and the mountains in the west are loose talus and angular bedrock, both of which limit burrowing potential (although tortoises could occupy select microsites.) (Appendix D-4:13.)

515 The Coachella (Santa Rosa Mountains) properties are "an inadequate replacement for land lost at Mesquite" with respect to desert tortoises. (Appendix D-4:14; 16.) They have no connection to regional tortoise populations. (Appendix D-4:14.)

PV-11 and PV-21 "probably have lower densities than were originally at the Mesquite Mine site." (Appendix D-4:14.) Because of the poorer quality habitat and presence of "substantial non-habitat" (Appendix D-4:15), and the potential for disturbance and substantial amount of private land outside the ACEC which could be developed for recreation between the Palo Verde properties and Chuckwalla Bench ACEC, the exchange properties PV-11 and PV-21 could result in exacerbation of deficiencies of good habitat between the Palo Verde properties and ACEC. (Appendix D-4:15, 16.) "Since there are already several campgrounds in the area, the potential for expanded recreational activities should be carefully

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 514

Noise berms can be an effective means of reducing noise energy from neighboring uses. Earth berms are recognized by the County of Imperial General Plan, Noise Element as a method of attenuating noise impacts. Noise berms would not be required for the proposed project because there is no evidence that railroad noise significantly affects desert tortoise and because the construction of 4- to 5-mile-long noise berms north and south of the proposed rail spur would unnecessarily increase project-related ground disturbance and may attract OHV uses.

Response to Comment No. 515

The Santa Rosa offered exchange parcels are not meant to mitigate impacts to the desert tortoise. Please see response to Comment No. 350.

considered." (Appendix D-4:16.) The Imperial County GPU designates the area as Recreation/Open Space so recreational development should be expected if private lands are not acquired by BLM.

Karl's review of the 5 proposed exchange properties cautioned that:

> acquisition of the Palo Verde properties, especially PV-1 and the eastern portion of PV-11, appears to represent a reasonable exchange for lands at the Mesquite Mine, relative to habitat quality and relative abundance. They may also assist tortoise conservation efforts because of their proximity to the core tortoise population inhabiting the Chuckwalla Bench ACEC, as long as (1) recreational activities do not escalate in the area and (2) the BLM's continued goal is to acquire all private lands between the Palo Verde properties and Chuckwalla Bench ACEC. With respect to tortoises, the Coachella [Santa Rosa Mts.] properties are inadequate exchange for land lost at Mesquite. (Appendix D-4:16; emphasis added.)

516 Karl's assessment in the Biological Resources Appendix D appears to suggest a habitat quality for the proposed exchange properties which is in sharp contrast to the DEIS discussion of the exchange parcels as being "located within BLM Category I desert tortoise habitat that has been designated as critical habitat by the USFWS" (DEIS 3-58 and S-30). If the proposed exchange parcels are located in Category I habitat which has been designated as critical habitat for desert tortoises, what is the full mapped extent of Category I desert tortoise habitat in (a) the Chuckwalla Bench area and (b) within Imperial County? What is the full mapped extent of the critical habitat for the desert tortoise in the Chuckwalla Bench area? When were these determinations made? Please cite sources and include maps.

Proposed compensation acreage within Chuckwalla Bench ACEC, Where is the DEIS information?

517 What additional acreage within the Chuckwalla Bench ACEC is proposed to be offered to BLM for compensation for biological impacts at the proposed site in addition to the exchange parcels near the Chuckwalla Bench and in the Santa Rosa Mts. (DEIS 2-6)? Why were no studies made of the proposed compensation properties within the Chuckwalla Bench ACEC included in the DEIS Appendix D or DEIS Sec. 3.1.3.2 and 3.1.3.3? Why does DEIS propose only a 1:1 ratio for compensation loss of Category III habitat (DEIS 4-39) rather than a 2.5:1 ratio as required for the Eagle Mountain LF ROW (USFWS 1992)? For compensation for loss of Category III desert tortoise habitat, will off-site habitat in the Chuckwalla management area in Imperial County be purchased and dedicated as open space using a 2.5:1 multiplying factor as for Eagle Mountain LF (USFWS 1992:5)? If not, why not?

Sec. 3.1.3. BIOLOGICAL RESOURCES AFFECTED ENVIRONMENT
Sec. 4.1.3. BIOLOGICAL RESOURCES ENVIRONMENTAL CONSEQUENCES

518 A review of text of the Appendices, especially Appendix D-3 suggests that the assertion (DEIS 4-23; 4-24) that impacts of the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 516

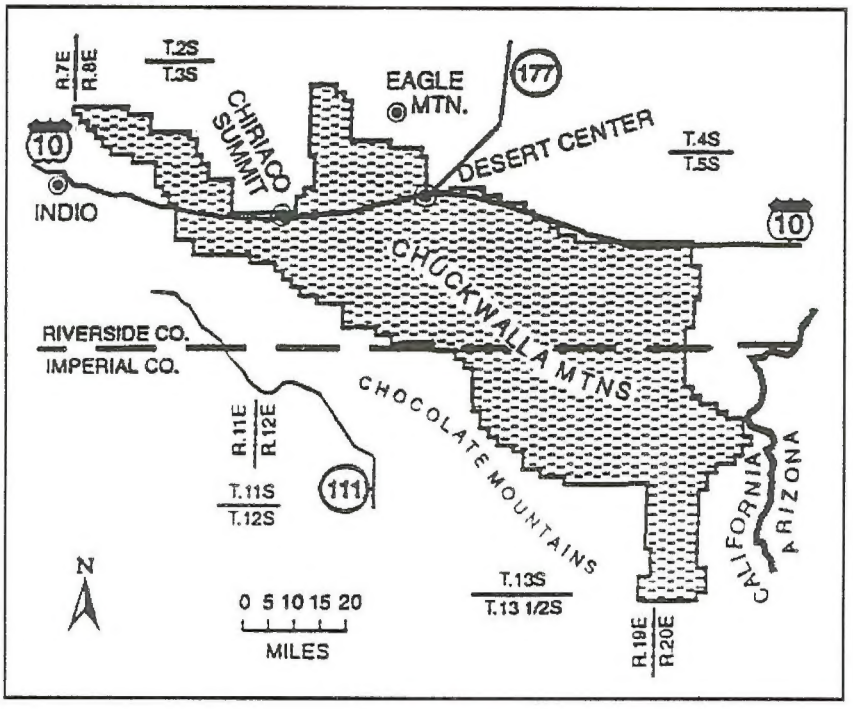
The offered exchange parcels in the Santa Rosa Mountains are desirable because of their aesthetic value, not their biological value. Biological resource impacts would be mitigated by minimizing impacts in the vicinity of the proposed landfill site as described in this EIS/EIR and by transferring private lands to federal ownership for management by the BLM. The private lands, or compensation parcels, that would be transferred to federal ownership are all within USFWS Designated Critical Habitat for the desert tortoise and within the Chuckwalla Bench ACEC. Likewise, the Offered Exchange Parcels in the Chuckwalla Bench area are also within USWFS Designated Critical Habitat for the desert tortoise. Response Figure 12 shows the area in the Chuckwalla unit that is designated by the USFWS as critical habitat for the desert tortoise. The following Response Table 17 is a listing of the sections that comprise the area depicted on Response Figure 12.

Response to Comment No. 517

Please see response to Comment No 158. The compensation parcels were studied by the USFWS during the process that resulted in the designation of desert tortoise critical habitat. A 1:1 compensation ratio is required to offset the direct and indirect impacts of the proposed project because the proposed site is located in Category III (lowest quality) desert tortoise habitat. Conversely, Eagle Mountain's private rail spur impacts a substantial amount of Critical Habitat for the desert tortoise; requiring the 2.5:1 compensation ratio. This compensation ratio was calculated using the same BLM formula that was used to calculate the compensation ratio for the proposed Eagle Mountain Regional Landfill Project. Ultimately, the compensation ratio will be established by the Biological Opinion that will be issued by the USFWS prior to the issuance of a Record of Decision by the BLM. The ultimate ratio would not be less than 1:1.

Response to Comment No. 518

Please see response to Comment No. 348.



SOURCE: U. S. Fish & Wildlife, 1994.

Proposed Mequite Regional Landfill

Chuckwalla Bench Critical Habitat Desert Tortoise

RESPONSE FIGURE

12

RESPONSE TABLE 17
Chuckwalla Unit
Critical Habitat for California Desert Tortoise

Township/ Range	Sections
3 S 13 E	19-21 and 27-35
4 S 8 E	1-6, 8-16, 22-26, and 36
4 S 9 E	6-10 and 15-36
4 S 10 E	19-21 and 27-34
4 S 13 E	2-11 and 14-36
4 S 14 E	27-36
4 S 15 E	31 and 32
5 S 9 E	1-4, 12, 13, and 24
5 S 10 E	2-30 and 32-36
5 S 11 E	19-21 and 28-33
5 S 12 E	36
5 S 13 E	1-5 and 8-36
5 S 14 E	1-36
5 S 15 E	4-9, 16-21, 25; S 1/2 sec. 26; S 1/2 sec. 27, and secs. 28-36
5 S 16 E	28-35
6 S 10 E	1-4, 9-16, 21-26, 35 and 36
6 S 11 E	4-36
6 S 12 E	1-36
6 S 13 E	1-36
6 S 14 E	1-36
6 S 15 E	1-36
6 S 16 E	1-36
6 S 17 E	5-9 and 14-36
6 S 18 E	29-36
6 S 19 E	31-36
6 S 20 E	31-34
7 S 11 E	1
7 S 12 E	1-6, 9-15, and 23-25
7 S 13 E	1-30 and 31-36
7 S 14 E	1-36
7 S 15 E	1-36
7 S 16 E	1-36
7 S 17 E	1-36
7 S 18 E	1-36
7 S 19 E	1-36
7 S 20 E	3-10, 14-23, and 26-35
8 S 13 E	1, 2, and 11-14
8 S 14 E	1-18 and 21-26
8 S 15 E	1-30 and 34-36
8 S 16 E	1-36
8 S 17 E	1-36
8 S 18 E	1-36
8 S 19 E	1-36
8 S 20 E	3-10, 15-22, and 28-33
9 S 15 E	1
9 S 16 E	1-17, 20-29, and 32-36
9 S 17 E	1-36
9 S 18 E	1-36
9 S 19 E	1-36
9 S 20 E	5-8, 17-20, and 29-33
10 S 16 E	1-5, 9-16, and 22-26
10 S 17 E	1-36
10 S 18 E	1-36
10 S 19 E	1-36
10 S 20 E	3-36
10 S 21 E	18-21 and 28-34; S 1/2 secs. 31-33
11 S 17 E	1-5 and 8-15
11 S 18 E	1-24
11 S 19 E	1-26, 35, and 36
11 S 20 E	1-23 and 26-34
11 S 21 E	4-8
12 S 19 E	1, 2, 1-14, 23-26, 35, and 36
12 S 20 E	3-10, 15-22, and 27-34
13 S 19 E	1, 2, 11, 12, 22-27, and 34-36
13 S 20 E	3-10, 14-23, and 26-34

Source: BLM, 1994.

increased amount of rail traffic and its associated noise and vibrations would not generally be significant understates the discussion of noise impacts in Appendix D. A more accurate representation of noise impacts on terrestrial wildlife, especially reptiles should be included in DEIS text because such discussion is included in Appendix D; Bondello (1976); Bondello & Brattstrom (1979); and USFWS (1992) and because concerns about such impacts were raised by Dr. Boarman, a BLM biologist, with respect to tortoise impacts at the proposed Eagle Mountain LF (Charpied 1994:8,9).

Sec. 3.1.3.2. VEGETATION:

519 Once again why does the DEIS understate the rainfall information provided in Appendix D-1, but missing from Appendix B and DEIS text elsewhere? Rainfall data was gathered at the Mesquite Mine site from 1983 to June 1992 (Biological Resources Appendix D-1:13), not merely from 1983 through 1987 as indicated by the Hydrogeology Technical Report (Appendix B Table 4.1 (a table dated 10/28/93) appended as Exhibit J herein.). That Appendix D Mesquite Mine rainfall data indicated that 3 of the 10 years had rainfall in excess of 5 inches/year, that Dec. 93 had 3.14 inches of rain, March 1992 had 4.07 inches of rain, more than the average annual rainfall in each of those months! Further, during the first 6 months 1992 rainfall was 7.46 inches before the beginning of: "The usual rain season [which] is from July through January." (Appendix D-1:13, and Table 1 at D-1:14; included as Exhibits H and I herein.). The rainfall for the first 6 months of 1992 was twice the expected annual rainfall. (Appendix D-1:36.) Why was this data withheld from those preparing other technical reports and the DEIS itself? What is the rainfall data for the remainder of 1992 through July of 1994? The 12/93 Air Quality Appendix F (p.2-5) reports 13 inches of rain in 1992!

We cannot refrain from restating our concern about missing rainfall information from DEIS, not only because of the importance of rainfall for biological resources, but because accurate measurements and rainfall history are important in an accurate assessment of the potential for leachate generation, moisture infiltration, landfill gas generation and runoff at the proposed LF site. Why does DEIS 3-49 continue in its attempts to minimize the rainfall data for the proposed project site?

520 Appendix D-1 presents a view of the proposed site as being richer in both vegetation diversity and cover than the DEIS Sec. 3.1.3.2 text. DEIS text should be reflective of information in the relevant appendices. Why isn't it? How does changing availability of vegetative cover and forage influence behavior, physiology, survival, and reproductive success of wildlife experiencing the stresses and habitat loss that accompany human activity including proposed project impacts.

Sec. 3.1.3.3 WILDLIFE

521 Are you sure that "Reptiles become most active at night during spring and summer months" (DEIS 3-50)? Our observations indicate that most Imperial County lizards and desert tortoises are

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 519

Although numerical values for rainfall vary to a small degree in different parts of the Draft EIS/EIR, the conclusions do not. Rainfall was discussed in the Draft EIS/EIR for different purposes in the studies of biology, hydrogeology, infiltration, etc. This Final EIS/EIR presents rainfall data more consistently.

Response to Comment No. 520

The Draft EIS/EIR reflects the vegetation as described in Appendix D-1. Both the Draft EIS/EIR and Appendix D-1 state that ". . . average vegetative cover is approximately 5 percent, much of it occurring in the washes and runnels." The following sentences have been added following the first sentence at the top of Draft EIS/EIR page. 3-50 to more fully describe the diversity of plants that occur on-site: "Some 95 plant species were observed in the supplemental field inventory area. These species are listed on Table 2 of Appendix D-1 to this EIS/EIR. The biological impacts raised by this comment are not considered to be significant.

Response to Comment No. 521

The statement concerning active periods for reptiles has been revised in this Final EIS/EIR as follows: Reptiles, like amphibians, regulate their body temperature mainly by gaining heat from their environment. To regulate its body temperature, a lizard or snake crawls out of its overnight refuge and exposes its body to the sun. It gains heat from the warm soil, from the air, and directly from the sun's radiation. When its internal body temperature is at an optimum level, the reptile attempts to prevent the gain or loss of additional heat. The lethal temperature of snake is lower than that of lizards. This may in part explain why most desert snakes are nocturnal, avoiding the heat, while most lizards are diurnal (MacMahon, 1992). For reptiles in general, active body temperatures fall in the range of 88 to 122 degrees Fahrenheit, with a mean of about 95 degrees Fahrenheit. The highest body temperature at which an animal is voluntarily active seems to be that of the desert iguana (Didsosauris dorsalis), which is regularly active at 115 degrees Fahrenheit, a value quite close to its lethal temperature of about 118 degrees Fahrenheit.

distinctly diurnal rather than nocturnal. We found no Appendix D-1 assertions of nocturnal activities of reptiles at the proposed site surveyed. Is the reference to certain species of snakes? If not, to what species does DEIS refer and what are references?

522 In contrast to the DEIS reference to 33 species of birds (DEIS 3-54), Appendix D-1 states that the "Supplementary Inventory Study area provides wintering and nesting habitat to a diverse avian fauna (Table 6). A list of some 50 species birds seen in the overall area by OALS personnel and others is presented in Table 7." (Appendix D-1:41.) Why doesn't DEIS reflect information in Appendix D?

523 Sec. 3.1.3.4. THREATENED AND ENDANGERED SPECIES (TES) - RAIL HAUL ROUTE: DEIS 3-57 lists the Salt Creek ACEC and portions of the Imperial Irrigation District (IID) canals having 3 TES species of birds and 2 TES species of fish that could be impacted in the event of a MSW residue derailment. At how many other sites does the SP rail line cross open bodies of water or canals where MSW derailment could impact people or wildlife between the transfer stations/MRFs in other counties? What is the identity of these sites and what are the biological resources potentially impacted?

Sec. 4.1.3.2 BIOLOGICAL IMPACTS OF PROPOSED PROJECT

524 Proposed project would impact 3657 acres of previously undisturbed lands. (DEIS 4-19.) Is the total additional undisturbed area to be directly impacted by the proposed project or are there also additional lands to be directly disturbed? While the project may not fit the DEIS criteria for significant impacts on vegetation, because such a large acreage would be disturbed and/or denuded of vegetation, the proposed project would create significant impacts for wildlife habitat.

525 VEGETATION: If the Applicant will allow collection of the blue palo verde and ironwood by collectors prior to disturbance of vegetation (DEIS 4-21), will the Applicant also allow for the collection of any and all other plant species and individuals throughout the project site whether or not plants are "species of special interest" to scientists? If not, why not? Why are only the blue palo verde and ironwood listed as collectable or salvageable in the DEIS?

526 WILDLIFE: Why does the DEIS list 3657 acres of land as subject to vegetative disturbance (DEIS 4-19), but 3579 acres having wildlife habitat removed (DEIS 4-22)? Why wouldn't the
527 installation of tortoise proof perimeter fencing trap much of the small terrestrial desert wildlife presently using the unfenced proposed site? What size mesh or type of fencing would preclude the use of the project site by both juvenile tortoises and small burrowing mammals? To what depth will the tortoise proof fence be buried to prevent burrowing under the fence? What type of fencing would be used to prevent small rodents from climbing up, over, and/or through the fence to the LF itself?

DEIS underestimates wildlife impacts by suggesting merely

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 522

Table 6 of Appendix D identifies 37 birds that were observed at the proposed landfill site. Table 7 identifies 51 birds that were observed in the landfill study site and adjoining area. The first three sentences in Section 3.1.3.3 under the heading *Birds* have been revised as follows: Fifty one species of birds were observed within the project area. The greatest number of species utilize the dense and diverse structured canopies of the northern (upstream) reaches of the washes in the project area."

Response to Comment No. 523

Based on USGS 7.5 Minute Quadrangle Maps that include the proposed Rail Haul Route, approximately 35 'blue line streams' are crossed by the SP Main Line between the LATC and the proposed rail spur. This EIS/EIR focused on the potential effects of a spill in the Salt Creek ACEC because this area is representative of other areas along the SP Main Line between the LATC and the proposed rail spur. As described in this EIS/EIR, the Salt Creek ACEC has four fully-protected species associated with the habitat provided in the ACEC. Two of these, the desert pupfish and razorback sucker inhabit the waters that occur in the ACEC and impacts to these species would be representative of impacts to other species that inhabit other areas of open water along the SP Main Line. The Yuma clapper rail occurs in the Salt Creek ACEC and the California black rail is thought to inhabit the Salt Creek ACEC. These two bird species are dependent on open water areas for foraging and as such would be sensitive to a spill within an open water area, perhaps more so than birds that live in willow riparian or other non-marsh habitat systems. Therefore, impacts to these birds would be representative of impacts to other species, including mammals and reptiles along the SP Main Line. This EIS/EIR found that with implementation of the Spill Contingency Plan and SP's standard clean up procedures, impacts of an MSW residue spill into any habitat area along the SP Main Line would not be significant.

Response to Comment No. 524

The total amount of previously undisturbed land that would be impacted by the proposal is 3,657 acres. This EIS/EIR concludes that this impact would be offset in part by the transfer of the offered exchange parcels to the BLM. The mitigation measures listed in this EIS/EIR including the transfer of compensation parcels, would further reduce this impact.

Response to Comment No. 524 (Cont'd)

With mitigation, this impact would not be significant. The commentor's opinion that the mitigated loss of 3,657 acres of habitat would be significant is noted.

Response to Comment No. 525

Other species could be collected. Blue palo verde and ironwood were singled out in this EIS/EIR because the collection of these species in the wild is a problem of such significance that a California law was passed forbidding the collection of these species without a permit. The public would be allowed to collect other plant species as well, subject to liability and construction and operational considerations.

Response to Comment No. 526

3,579 acres of previously undisturbed habitat occurs within the landfill site and it is assumed that all of this habitat would be impacted by the proposed project. An additional 78 acres of land would be impacted by the proposed rail spur for a total acreage of 3,657 acres.

Response to Comment No. 527

Details of the desert tortoise fencing are provided in response to Comment No. 336. The fence would be designed to deny access to juvenile tortoises, but small rodents may not be excluded. If small reptiles and rodents were not frightened away by construction activities, it is likely that they would be adversely impacted during construction. Impacts to small rodents and reptiles would not be significant. Therefore, displacement and exclusion of small terrestrial animals, except the desert tortoise, is not required. These small animals would not affect the operational integrity of the landfill (please see response to Comment No. 429).

displacement of wildlife as habitat is "removed" and tortoise proof fencing is installed (DEIS 4-22). Not only would resident reptiles, including the desert tortoise, be "displaced from the site" during construction (DEIS 4-22), wouldn't most reptiles and small mammals also be destroyed by construction activities? If not, wouldn't burrowing mammals pose a potential threat to the landfill liners? How would construction and fencing proceed if displacement and exclusion, rather than destruction, of small terrestrial mammals and non-tortoise reptiles were to be assured?

528 After reviewing Appendix D, USFWS (1992), and the DEIS text, we are unable to concur with the DEIS conclusion that impacts of the proposed project and ROW use and maintenance to wildlife would be insignificant (DEIS 4-22 to 4-24). Habitat lost is habitat lost, and 3579 acres of lost habitat adjacent to and on the Mesquite Mine site (DEIS S-1; Fig.2; and 3-19) cannot be anything other than significant regardless of the availability of adjacent habitat or habitat quality of distant exchange or compensation lands! The adjacent Mesquite Mine (a portion of which would be used for the proposed LF project) has "disturbed" an approximately 4000 acres site including 3100 acres of BLM land (DEIS 4-210).

529 HABITAT FRAGMENTATION: Why does the DEIS contain conclusions about habitat fragmentation (DEIS 4-22) which are exactly the opposite of the statements in the Biological Resources Appendix D? DEIS states that:

> proposed Landfill would similarly not be expected to significantly interrupt wildlife movement patterns or result in additional habitat fragmentation (the local habitat is already fragmented by Mesquite Mine and SR 78) because wildlife would be able to move around the proposed project area to get to the other side. (DEIS 4-22.)

By contrast Appendix D describes what we consider to be very serious wildlife impacts on the desert tortoise and other small terrestrial species which are unlikely to be able to "move around the proposed project site" of the proposed 4245 acre project which is immediately adjacent to the operating Mesquite Mine, a combined area of almost 14 square miles. DEIS cites no studies of such long distance migrations of small mammal (rodent) and reptile populations and individuals. Indeed, DEIS notes that:"Smaller mammals, reptiles and amphibians (i.e. wildlife with smaller home ranges and reduced mobility) would be affected the most due to their inability to move off site." (DEIS 4-22.)

530 DEIS consideration of significant impacts are limited to impacts on "the regional ecosystem", not populations within that ecosystem. Yet impacts on populations of smaller terrestrial animals will be significant and non-mitigable because so much habitat would be lost.

531 Why does the DEIS acknowledge the impacts of the rail spur ROW on movements of wildlife (DEIS 4-23) but not for the even larger size of the proposed combined LF and mine sites?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 528

The commentor's feeling that the loss of habitat on-site is significant is noted. This EIS/EIR finds that the loss of habitat for the desert tortoise is significant, but that the loss of habitat for other species is not significant. The loss of habitat for the desert tortoise would be mitigated by providing at least 3,657 acres of land to the BLM. The use of compensation lands to mitigate site impacts is well established nationwide.

Response to Comment No. 529

Habitat fragmentation occurs when a pocket of habitat is isolated from adjacent habitat areas. The proposed project could isolate that area of habitat located north of SR 78, east of the SP Main Line, south of the proposed rail spur, and west of the proposed landfill. The quoted statement from Appendix D-3 is taken out of context. Appendix D-3 continues: "Should the rail spur effects be successfully mitigated (see Section 6.1.1 below), this fragmentation should not occur." Gravel beaches described in Section 6.1.1 of Appendix D-3 as well as culverts would be constructed to maintain access to the north across the proposed railroad spur. Therefore, the conclusions of this EIS/EIR are in agreement with Appendix D.

It is not necessary for an animal to travel large distances to allow for an exchange of genetic information because over time genetic information can travel through the movement of successive generations. Therefore, it is not expected that this project would substantially fragment habitat and impacts are not significant.

Response to Comment No. 530

The commentor has assumed that any loss of animals is significant, and is therefore disagreeing with the significance criteria presented in Section 4.1.3.1 of this EIS/EIR. This is noted.

The loss of the on-site populations would not substantially affect a threatened, endangered, or category species, special interest species, or its habitat, because the loss of on-site habitat would be mitigated by off-site compensation of much higher quality habitat and because desert tortoise found on-site would be relocated and precluded from reentering

Response to Comment No. 530 (Cont'd)

the site. The loss of on-site habitat would not substantially diminish the habitat for plant or animal species that occupy or visit the proposed site considering the vast habitat for these species in the surrounding Colorado Desert. The project would not substantially interfere with the movement of a resident or migratory wildlife species, because connections to neighboring habitat areas would be adequately maintained and because the site does not function as a wildlife corridor.

Response to Comment No. 531

Appendix D-3 describes fragmentation impacts associated with the combination of the mine, landfill, rail spur, and mountains. The rail spur was addressed as the cause of fragmentation in the EIS/EIR because Dr. Alice Carl identified that successfully mitigating the effects of the rail spur on tortoise movement would mitigate habitat fragmentation impacts. Please see response to Comment No. 529.

532 IMPACTS ON TORTOISES & SMALL TERRESTRIAL ANIMALS & USFWS 1992: Potential impacts of proposed project on desert tortoises and other small terrestrial animals include, but are not limited to the following impacts as discussed in Appendix D-3. Although included in the desert tortoise study, many of the impacts are just as applicable to other reptiles and small mammals found at the site.

Construction Phase Impacts:
Direct effects include loss of tortoises: (1) by crushing or removal from the population, including removal because of translocation efforts.

(2) Translocation to unfamiliar habitat, potentially reduced forage, and already occupied habitat could also adversely impact social interactions. (Appendix D-3:22.) It is the translocation or relocation of desert tortoises which appears to be a major emphasis of the DEIS to assure the public that impacts of the proposed project on the threatened desert tortoise "would not be signifi-
533 cant." (DEIS 4-25.) However, DEIS fails to include discussion in the Appendix D which raises questions about the long term success and utility of such relocation programs.

> At this time, the FWS does not necessarily condone translocation of tortoises from a site this large; tortoises may have [sic] be removed for use in research, for example. (Appendix D-3:22.)

Additionally, CDFG "does not approve of translocation" at this time. (Appendix D-3:28.) Translocation would prevent loss of individual tortoises, but remove them from the population.

534 (3) Fencing will reduce home ranges that intersect the site, reduce forage, coversites, and disrupt movement patterns. (Appendix D-3:22.) The facility fences will have limited value excluding terrestrial predators and none with regard to avian species" (Appendix D-3:29) such as ravens, which may be attracted to the site. Even the DEIS notes that "growth of raven populations would be a potential threat to tortoises" because they prey on juvenile tortoises. (DEIS 4-25.)

535 (4) An unknown pathogen has caused recent increased tortoise losses in the Chuckwalla Bench area 30 mi. NW of the site. (DEIS 4-25.) Translocation could exacerbate sensitivity and incidence of disease (Appendix D-3:23.)

536 (5) loss of rodents resulting from habitat disruption during construction could result in a temporary increase in predation by canids. (Appendix D-3:23.)

Operations Phase Impacts on Desert Tortoises
Operations phase impacts on desert tortoises will be off-site impacts. These include long term loss of burrows, nesting sites, and food resources. The mine, LF and RR spur "would result in nearly complete fragmentation of the area's tortoise population with one subpopulation east of the Landfill and one to the west." (Appendix D-3:23, 24.) There would be disrupted gene flow and population segregation, mortality due to thermal exposure for tortoises caught between tracks, and "potential auditory damage

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 532

Comment noted, but because these small terrestrial animals are not threatened or endangered and because this project would not substantially impact these species, as defined by the EIS/EIR, impacts would not be significant.

Response to Comment No. 533

Every indication is that tortoise relocations associated with the development of the Mesquite Mine have been successful. Please see response to Comment No. 197. Please note that because the project area is Category III, lowest quality, habitat and not Critical Habitat, by definition all tortoises on-site could be lost without affecting the survival of the species. Nevertheless, every reasonable effort is being required of the Applicant to provide for the continued survival of on-site tortoises.

Response to Comment No. 534

Comment noted. That is why a raven control plan would be implemented and steps taken to control ravens if they are attracted to the landfill and that attraction affects the desert tortoise. There is no need to keep species other than the desert tortoise outside of the fenced area because they would not be significantly impacted and because they would not significantly affect the proposed environmental controls.

Response to Comment No. 535

It is expected that the on-site tortoises would be relocated to areas near the proposed landfill site and not 30 miles away in the Chuckwalla Bench. Therefore, the incidence of disease is not expected to be affected.

Response to Comment No. 536

Appendix D calls these impacts temporary and minor. They would not be significant.

from train noise levels." (Appendix D-3:24.)

Additionally, construction, operation, maintenance, and rehabilitation of landfill site, facilities and railroad including proposed railroad spur are likely to cause impacts to desert tortoise individuals and populations similar to those described in the USFWS (1992) Biological Opinion for the proposed Eagle Mountain landfill.

> Ravens and other carnivores may be attracted to the site in response to lights, increased perch sites, road kills, standing water, and windblown refuse, resulting in alterations of the predator-prey relationships in the local vertebrate community and subsequent losses of tortoises. (Appendix D-3:25.)

Increased food sources could result in increased raven populations, leading to potential increases in hatchling and juvenile predation. (USFWS 1992:10.) Since ravens have been observed travelling up to 30 miles from nesting territories to landfills, any potential for increase in raven populations, particularly if coupled with movements of ravens into habitat near a landfill could result in increased predation and tortoise losses. (USFWS 1992:11.)

537 The above potential impacts of the proposed project on tortoises and tortoise populations in the project vicinity as discussed in Appendix D are not adequately reflected in the DEIS.

538 What is the potential for the project to increase cumulative impacts of deposition of dust on forage and photosynthetic activity of plants and respiratory difficulties of tortoises from the project? In addition, dust generation from mining activities, sand and gravel operations, and OHV activity in the vicinity will continue to impact wildlife habitat and wildlife.

539 How effective has daily cover been in "minimizing proliferation" of rodents, house sparrows, gulls and ravens at other large landfills operating 24 hours/day? What is the estimated time any given "working face" of maximum of 0.5 acres (DEIS 4-23) would be uncovered before it is covered with 6 inches of cover material(DEIS 4-14)? On how many working faces would LF operations be conducted at any one time? How would the maximum 3 acre of all MSW residue that would be exposed at any one time (DEIS 4-14) be enforced?

540 How would fencing keep wildlife enclosed within the perimeter fencing or birds away from the working face or stored materials (DEIS 4-14)? What actions are planned to clear the entire proposed LF site of small mammals and rodents prior to completion of installation of perimeter fencing? What type of fencing would exclude climbing rodents or lizards?

541 How would hazardous materials and liquids be removed from small household containers and MSW which has been packaged in "trash compactors" prior to transit from the transfer sta-

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 537

The long-term loss of burrows, nesting sites, and food resources would be an obvious result of the loss of 3,657 acres of undisturbed habitat as described in this EIS/EIR. Fragmentation impacts are addressed on page 4-27 of the Draft EIS/EIR (please see responses to Comment Nos. 529 and 531). Thermal exposure is addressed on page 4-27 of the Draft EIS/EIR. Noise impacts are addressed on page 4-26 of the Draft EIS/EIR.

Sources of impacts to the desert tortoise from the proposed project would be similar to the sources of impacts from the Eagle Mountain Project. However, the Eagle Mountain Project involves impacts to Critical Habitat for the desert tortoise. The habitat that would be impacted by the proposed project is Category III (lowest quality) habitat. The project-related impacts to Category III desert tortoise habitat would be fully mitigated as discussed in the EIS/EIR.

Many of the same potential landfill attractants to ravens currently exist at the Mesquite Mine, with no observed increase in raven populations. Potential raven impact and mitigation measures are addressed in the Draft EIS/EIR (pages 4-25 to 4-26 and 4-35 to 4-37). Please see response to Comment No. 534.

Response to Comment No. 538

The proposed landfill would increase emissions of dust on-site. The vast majority of the dust generated would fall to the earth within one mile of the emission source. This is not expected to substantially increase the existing dust impacts to desert tortoise or other species of wildlife and plants for the following reasons:

- The Applicant will implement all required mitigation measures to reduce project-related air emissions.
- Dust emissions from the existing Mesquite Mine will decline as the mine closes.
- Much of the dust would fall within the landfill site or mine site, on previously disturbed land or land proposed to be disturbed by the proposed project. These past and proposed disturbances have been or would be fully mitigated as described in this EIS/EIR and previous environmental documents.

Response to Comment No. 538 (Cont'd)

- In addition to the raven monitoring plan required by this EIS/EIR, the Applicant would be required to conduct a monitoring program of natural habitat areas in the vicinity of the proposed landfill site. Please see response to Comment No. 337.

Response to Comment No. 539

Six inches of daily cover is mandated by the State of California as the minimum amount of cover necessary to deter scavenging and moisture infiltration. As described in Section 2.1.4.1 of this EIS/EIR, under the subheading "MSW Residue Placement", six inches of daily cover would be applied every 24 hours. The amount of cover would be increased if six inches does not prove adequate to deter scavenging. The maximum time between cover applications is 24-hours. Cover would be applied more frequently if necessary to control birds and other scavengers and/or to control them. Up to five working faces could be used at any one time. It is anticipated that all of these operational features would be conditions of the CUP and/or Solid Waste Facility Permit, and would be enforced by Imperial County. Please see response to Comment No. 339.

Response to Comment No. 540

It is not intended that fencing would keep all scavengers away from the landfill, only tortoises and larger animals. Small rodents would be deterred by daily cover, intermediate cover, stability berms, and final cover.

Response to Comment No. 541

Please see response to Comment No. 323.

Section 4.1.3.2 of the Draft EIS/EIR contains a discussion about the potential impacts associated with a rail accident. That discussion acknowledges that small amounts of household hazardous waste would remain in the MSW residue after sorting at transfer stations/MRFs. The Draft EIS/EIR discussion concludes, however, that the potential impacts of such a rail accident would not be significant.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 541 (Cont'd.)

MSW residue is not similar to aqueous hydrazine, an extremely hazardous substance (40 CFR parts 350 and 355). Though small amounts of household hazardous waste likely would be present within each container, MSW residue is not considered hazardous by state or federal regulators. This is because well over 99 percent of MSW residue consists of materials such as food waste, paper, inert solids and plastics which would not harm wildlife, the public, or the environment. (Please see response to Comment No. 359 for an estimate of southern California MSW residue composition. See also Response to Comment No. 320 concerning the conservative estimates of household hazardous waste volumes.) As a result, the potential impact to the environment from a derailment and spillage of MSW residue that is cleaned up would be insignificant. This is especially apparent when MSW residue is compared to other freight that is transported along on this SP Main Line including liquid nitrogen, liquid natural gas, and nuclear wastes.

tions/MRFs? DEIS assurances about derailments, spillage containment within ROW and speedy clean up without environmental consequences (DEIS 4-24) belie concerns raised by the 7/14/91 SP train derailment near Dunsmuir which spilled 19,000 gallons of metam sodium into the Sacramento River and caused major environmental damage. (CPUC 3/18/92.) Or should the public be reassured by the DEIS (4-24) discussion of accidents and speedy SP clean up response after reviewing reports of the 7/28/91 SP train derailment of 14 cars at Seacliff which released 440 gallons of aqueous hydrazine in Ventura County. Highway 101 was closed for 5 days while crews worked to clean up that spill. (CPUC 3/18/92.) Surely the public would expect a higher level of SP attention to details of rail car maintenance and loading when transport of known hazardous materials was involved. If accidents can and do happen with SP hazardous waste rail haul, why should the public believe that similar accidents would not/could not happen with SP rail haul of MSW residues? Past history indicates Murphy's Law is applicable to SP rail routes. What might be the potential impacts of similar rail accidents over open water along the MSW rail haul route?

Impacts on Desert Tortoise:

542 Why does the DEIS continue to attempt to minimize or misrepresent the numerical information in the appendices? DEIS (4-25) states that "approximately 15 tortoises" greater than 140 mm carapace length are expected on Sections 7, 15, 18, and 19. However, Appendix D-3 states that one might expect approximately 15 tortoises on Sections 7, 18, and 19 (Appendix D-3:16) and 15 to 20 tortoises of that size in Sections 15 and 16 (Appendix D-3:19, 20).

543 Why does DEIS propose removal of tortoises and "relocation to surrounding habitat" (DEIs 4-25) when Appendix D-3 specifically states that relocation (or translocation) is not acceptable to either FWS or CDFG at the present time? (Appendix D-3:22, 28.)

Such emphasis on relocation of tortoises (DEIS 4-25) appears misleading in light of FWS and CDFG non-approval of translocations or relocations of tortoises. Further, Watkins (1993, 1994) and USFWS (1992:D-11, D-12) have stated that past desert tortoise relocation efforts have not met with much success. Have FWS and CDFG taken positions on tortoise relocation which are different than the opinions expressed in the 4/94 Appendix D-3? Which is accurate Appendix D-3 or the DEIS? Where is USFWS biological opinion for this proposed project? If CDFG and USFWS have changed their positions, when were the decisions made, and what was the rationale for those decisions? Are changes in relocation positions temporary or permanent? Please cite references.

544 Both Appendix D-3 and the cited Lawhead 1991 study indicate a tortoise apparent preference to burrow in railroad berms, yet Karl (Appendix D-3) was not convinced that the noise effects of frequent passage of long heavily laden trains would not adversely impact desert tortoises nor was USFWS (1992). Karl noted that the effects of train noise on desert tortoises may result in responses to other tortoises being "altered, with subsequent disruption of courting, mating and agonistic behavior." (Appendix D-3:25.) the noise and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 542

The sentence in question is not a misrepresentation, it is a summary of the information contained in the Technical Appendix. The specific data questioned is an average of the data presented in the Technical Appendix. This Final EIS/EIR has been revised to state that Sections 15 and 16 are estimated to contain up to 20 tortoise per section, while other sections on-site are estimated to contain 15 tortoise per section.

Response to Comment No. 543

Please see responses to Comment Nos. 197 and 337.

Response to Comment No. 544

Please see response to Comment No. 348.

activity associated with the LF project may diminish the quality of remaining adjacent habitat. (Appendix D-3:25.) Thus Appendix D-3 reaches a different conclusion than DEIS 4-26. The concerns about adverse impacts of noise on desert tortoises is not adequately or accurately reflected in DEIS 4-26.

545 Why doesn't the DEIS discuss the extent of the potential off-site impacts of raven predation on desert tortoises? As noted in the Draft EIS (1991:449) for the Eagle Mountain rail haul landfill in Riverside County: "The landfill could potentially provide a large food source for the ravens and the raven population could respond by increasing." Mesquite DEIS 4-25 does not adequately reflect the seriousness of the off-site impacts of increasing raven populations attracted to landfills. The biological opinion for the Eagle Mountain LF noted that: "ravens have been observed travelling up to 30 miles from nesting territories to landfills" and that:

> the additional food sources from landfills apparently does not discourage predation on juvenile desert tortoises (Recon 1991a). .... A potential increase in the local raven population, coupled with the movement of ravens into habitat near the landfill, could result in increased tortoises losses through predation. (USFWS 1992:11.)

With respect to the proposed MRLF site: "The nearest core tortoise population is the Chuckwalla Bench population, approximately 30 miles northwest, over the Chocolate Mountains. The proposed landfill essentially lies at the periphery of this population." (Appendix D-3:20.) Thus, the core tortoise population is located within the observed travel distance of ravens to landfill food sources (USFWS 1992:11) and the proposed LF may well represent a threat to tortoise populations. Why isn't this information included in the DEIS itself?

546 Potential spills resulting from derailment include more than just the potential release of MSW residue. DEIS is inadequate because it fails to discuss the environmental impacts of construction and routine maintenance of the rail spur and maintenance of the SP Main Line. The culverts may impact desert tortoises by inadvertent crushing or collapsing of burrows (USFWS 1992:10). DEIS fails to include adequate discussion of the potential for fuel spills or leaks which could occur as a result of the proposed project (USFWS 1992:10, 11, 14) which could impact both desert tortoise and desert pupfish habitat. USFWS (1992:14) noted that "rail cars incorporating oil/wick wheel bearings provide an additional source of contaminants if leaking. Toxicity of these materials are high for both invertebrates and desert pupfish." Would these kind of bearings be used in rail cars hauling MSW residue to the proposed MRLF? If so, what precautions would be taken to prevent leaking into the Salt Creek ACEC?

547 DEIS fails to discuss vegetation control along track or trestle areas where moisture supports such growth? What if any weed/vegetation control measures will be used to control weed species? Do the Applicant/partners agree not to use any herbicides

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 545

Landfills can be a potential attractant to ravens. However, modern landfills can be operated with little or no attraction of birds. Please see response to Comment No. 339. Many of the same potential landfill attractants to ravens currently exist at the Mesquite Mine, with no observed increase in raven populations. Potential raven impacts and mitigation measures are addressed in the Draft EIS/EIR (pages 4-25 to 4-26 and 4-35 to 4-37). Please see response to Comment No. 339. Because it is not expected that the proposed landfill would attract ravens that in turn impact the desert tortoise, and because the Applicant would continue raven monitoring for as long as such monitoring is warranted, project-related impacts to desert tortoise populations in the Chuckwalla bench would not be significant.

Response to Comment No. 546

The proposed rail haul would occur primarily on a common carrier line. Maintenance of this rail line is ongoing and would not change with the implementation of the proposed project. The SP Main Line crosses Salt Creek at one location and does not run parallel to the creek within the creek's drainage. Any spills would be cleaned up by SP according to existing procedures, supplemented by the spill contingency plan that would be prepared by the Applicant and the clean-up crew that the Applicant would have available to respond to spills 24-hours a day if the Proposed Action is approved. Therefore, impacts would not be significant.

Inspection of the SP Main Line occurs at least twice a week since this is a highly traveled route. The inspection activities are performed by SP Railroad in accordance with established procedures which assure minimization of impacts to the surrounding environment. SP Railroad has indicated that it does not expect these routine maintenance activities to increase significantly due to presence of additional traffic for the proposed regional landfill. Significant amounts of oil from railcars on the SP Main Line are cleaned up, as appropriate, based on the weekly inspections. The traffic on the rail spur is not expected to produce much oil. The impacts of small amounts of oil from rail cars would not be significant.

Response to Comment No. 546 (Cont'd)

Section 4.1.3.3 of the Draft EIS/EIR contains a list of measures required to mitigate potential impacts to biological species. The section entitled *Proposed Railspur Right-of-Way*, lists mitigation measures concerning the rail spur including construction activities.

Routine maintenance of the rail spur is expected to be infrequent. However, the Section 4.1.3.3 of the Draft EIS/EIR also requires a series of measures to mitigate impacts during maintenance activities.

Response to Comment No. 547

Existing maintenance activities along the SP Main Line would not have to be increased significantly to support the proposed rail haul. The mitigation measures on page 4-31 of the Final EIR/EIR identify "Manual or mechanical means of weed control would be the preferred methods employed. Use of other methods (e.g., herbicides) would require approval by appropriate managing agencies.

to control weed growth?

548 What are "adits" which are used as bat roosts (DEIS 4-26; 27)?

Sec. 4.1.3.3 BIOLOGICAL RESOURCES MITIGATION MEASURES
Vegetation and Sensitive Wildlife Habitat:

549 Why shouldn't as much native desert vegetation of all species of shrubs, trees, ocotillos, and cacti be removed/salvaged from the LF footprint, access routes, ROWs, and facilities sites as possible whether by BLM, Applicant or members of the public for replanting elsewhere (DEIS 4-31)? Why should it be permissible for the Applicant to eliminate all vegetation on the 2290 acre proposed LF footprint and on additional acreage for rail ROW and on-site facilities, including on lands originally public lands managed by BLM, but not permissible for as much vegetation as possible to be salvaged and replanted elsewhere?

550 Why shouldn't the use of all pesticides and herbicides (DEIS 4-31) be prohibited at the project site and along all ROWs to prevent off-site transit, to prevent wildlife exposure, and to eliminate worker exposure?

Tortoise Clearance and Relocation:

551 Has the Section 7 consultation and biological opinion been completed yet? To what locations is it planned to remove and relocate desert tortoises from the proposed MRLF site and rail ROW (DEIS 32)? What studies suggest such efforts are successful? How do such efforts affect individual tortoises and tortoise populations? Why do USFWS and CDFG not approve of such relocations? How successful have such efforts been with tortoises relocated from the Mesquite Mine site? Cite studies and documents. Why does Alternative III include part of the Vista Well Tortoise Relocation Area? Is it because relocation efforts have failed?

Fencing:

552 What specifically are BLM tortoise fencing specifications (DEIS 4-32)? How far will fencing be buried? What are the "appropriate tortoise-proof barriers" (DEIS 4-33)? The referenced DEIS Sec. 2.1.13 only mentions fencing.

Employee Instructions and Procedures:

553 Why doesn't the DEIS include provisions for the desert pupfish in addition to the desert tortoise? USFWS (1992) required such issues be addressed not only for the tortoise but also the pupfish for the Eagle Mountain biological opinion.

Landfill activities:

Many questions about the timing and efficacy of listed mitigation measures were covered elsewhere in these comments.

554 In order to facilitate drainage and prevent ponding of water, (DEIS 4-35) will drainage channels be better designed or at a different gradient than those observed in place at the Mesquite Mine during the 6/8/94 Planning Commission Workshop tour? During that tour standing water and uprooted desert trees were observed in

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 548

An adit is a horizontal entrance to a pit or mine.

Response to Comment No. 549

BLM would retain the authority to salvage the on-site vegetation for public uses, subject to the ability to remove the vegetation with the 90 day notification period identified on page 4-31 of the Draft EIS/EIR. This would be an adequate period of time to allow for salvage of on-site vegetation because only portions of the site would be cleared at any one time and clearing would occur over a period of many years. The Applicant would allow the public the opportunity to salvage on-site desert vegetation subject to liability and construction/operational considerations.

Response to Comment No. 550

The use of EPA-approved pesticides and herbicides would only occur in compliance with all applicable regulations. Use of herbicides along the rail spur for weed control would only occur if approved by the appropriate managing agencies.

Response to Comment No. 551

The Biological Opinion has not been issued yet; therefore, Section 7 consultation has not been concluded. Section 7 consultation will be completed prior to issuance of a Record of Decision by the BLM. The relocation site will be determined by the USFWS in the Biological Opinion, when it is issued. USFWS and CDFG have required relocation in the past for projects in Category III habitat, including the Mesquite Mine and the American Girl Mine; therefore it is expected that USFWS and CDFG will approve relocation for this project.

Figure 3-38 in the Draft EIS/EIR did not accurately depict the location of the Mesquite Mine Tortoise Relocation Site. The overlap between the alternative landfill site and the relocation site is actually less than shown in the Draft EIS/EIR. Figure 3-38 has been revised in this Final EIS/EIR to more accurately depict the location of the tortoise relocation site.

Response to Comment No. 551 (Cont'd)

The choice of the site for Alternative III is not related to past relocations of tortoise. The site was chosen primarily because it is in very close proximity to the SP Main Line and Ted Kipf Road, and therefore would require minimal disturbance to provide access. The alternative site addressed in this EIS/EIR could have been located further south along the SP Main Line to avoid the tortoise relocation area by a greater distance, but still within region 3, with no appreciable change in the environmental analysis presented in Section 4.5 of this EIS/EIR.

Response to Comment No. 552

Please see response to Comment No. 336. In the future, alternatives to fencing may be preferred by the BLM, USFWS, and CDFG. The details of future tortoise-proof barriers cannot be predicted at this time.

Response to Comment No. 553

Please see response to Comment No. 546. The only landfill employees that could come into contact with the desert pupfish would be members of the MSW-spill clean-up crew. These people would conduct clean-up operations under the direction of a biologist. Therefore, the requested training would not be necessary.

Should the USFWS identify the need for the members of the clean-up crew to receive specific training related to the desert pupfish in the Biological Opinion, a USFWS-approved training program would be developed and implemented.

Response to Comment No. 554

The commentor may have mistakenly thought that water standing in a desilting basin located near the mine shop was freestanding ponded water. The desilting basin is provided to reduce the silt content of flowing rainwater in order to assure that silt will not build up in portions of the channel and ultimately prevent proper drainage. BLM-approved biologists have not observed ravens using the Mesquite Mine facilities during their point-count observations, which have been conducted on a weekly basis

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 554 (Cont'd)

since January 1994. The temporary ponding is pumped from the desilting basin as soon as practicable.

A similar desilting basin has been proposed for the Mesquite Regional Landfill (see Figure 2-16 of the Draft EIS/EIR). After a significant rain event, temporary ponding would be pumped as soon as practicable. This temporary ponding would not impact the proposed liner due to the horizontal distances involved.

the drainage channel through which the bus travelled. It had been more than one week since the most recent rain (on May 24, 1994) which deposited 1.65 inches according to Bob Mitts of Santa Fe Pacific Gold Mine (formerly Mesquite Gold Mine). Water standing in small ponding areas within wash channels for more than one week would be likely to attract birds, specifically predators such as ravens. How will present drainage channels be redesigned to prevent the ponding of standing water such as observed on 6/8/94? How would infiltration of standing water affect characteristics of soils and clay layers under the LF and LF liner system?

555 Where are the design specifications of landfill closure, particularly for slope and surface stabilization and erosion control (DEIS 4-35)? There appeared to be considerable erosion and beginnings of gullying on a number of the slopes of overburden and heap leach piles at the Mesquite Mine site.

Raven Control:

556 Why wasn't the baseline raven monitoring program started in 1992 rather than waiting until 1/1994 so that the information could be reviewed by the public? What specifically are the BLM approved raven monitoring methodologies being used? Over how large an area is the background raven monitoring being performed? This is important since ravens have been documented as travelling 30 miles of more from nesting sites. For what distance from the landfill site will evidence of raven damage and predation on tortoises be checked? For what distance from the proposed LF site will raven nests and bases of nests as well as at bases of known raven perches be monitored for evidence or raven predation on tortoises? Details of raven predation are included in USFWS 1993 including Appendix D.

How can the public comment on the adequacy or results of the raven background monitoring when such information is not included within the DEIS or its Appendix D? Why hasn't the text of the Draft Raven Control Plan been included within the DEIS or Appendix D for public review and comment? We request that a draft Revised EIS/EIR be prepared which will include all missing information and plans and that said document be released for the full public comment period of 90 days. We were unable to find any citation for the referenced "Raven Management Plan for the California Desert Conservation Area" (DEIS 4-35) in the list of DEIS references. Does such a document exist? If it does, why wasn't it included in the list of references? If such a document was prepared did it make any references to or anticipate the existence of any such activities such as the proposed 20,000 ton/day above ground MSW landfill or even the 20,000 pit-fill MSW landfill at Eagle Mountain? Does such an uncited Raven management plan specifically address the concerns raised by a landfill project of the proposed magnitude? Why wasn't the text of that plan included in Appendix D?

How effective have the "passive" raven control measures been for ravens or gulls at other large regional landfills at other sites? How effective have any similar methods of bird control been at the 27,000 tpd Fresh Kills LF site on Staten Island? What are

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 555

Based on CCR Title 23, Chapter 15, Article 4, Section 2547, Class III waste management units are required to be designed to withstand the maximum probable earthquake without damage to the foundation or to structures which control leachate, surface drainage, erosion or gas.

The proposed Mesquite Regional Landfill would not have slopes steeper than a horizontal to vertical ratio of 3:1, therefore, a slope stability report would not be required for this project. Nevertheless, detailed draft slope stability calculations have been prepared for the RWQCB and CIWMB as part of preliminary permitting activities. Formal slope stability calculations will be released for public review as part of a formal WDR Permit reviewed by the RWQCB. Please see response to Comment No. 110 for discussion of seismic impacts on environmental control systems. Please see response to Comment No. 192 for a discussion of erosion. There is no requirement to repair erosion of the overburden piles.

Response to Comment No. 556

The methodology being used for the raven monitoring program along with the quarterly results of the monitoring are available for public review at the BLM El Centro Resource Area Office. Please see response to Comment No. 341. The public has the opportunity to review this information now and to submit written comments on this Final EIS to BLM and to submit written comments or appear at the Imperial County Planning Commission and Board of Supervisors public hearings on the proposed project.

Please see response to Comment No. 172. Please see response to Comment No. 339 that explains why the details of the raven control plan are not needed now.

The "Draft Raven Management Plan for the California Desert Conservation Area" was inadvertently omitted from the Mesquite Regional Landfill EIS/EIR reference binders. However, a copy of the plan could have been reviewed by asking the staff at the BLM El Centro Resource Office. This plan does not specifically reference the proposed Mesquite or Eagle Mountain regional landfill projects. It does anticipate the existence of such facilities. The plan does address attempts to modify raven use of landfills and sewage ponds by using behavioral disruption techniques.

Response to Comment No. 556 (Cont'd)

Some of the behavioral disruption techniques described in the plan include taste aversion, nest destruction, methods to reduce perchings and roosting on structures, and live trapping and relocation. Cooperating agencies include all county and cities in the California Desert Conservation Area, the BLM, California Department of Fish and Game, California EPA, and Regional Water Quality Control Board. The text of the plan was summarized in the Draft EIS/EIR (each of these behavioral modification techniques were identified in the Draft EIS/EIR). Please see response to Comment No 401.

It is not appropriate to compare the Fresh Kills LF to the Proposed Action, because they are in vastly different avian environments. With respect to the effectiveness of raven control measures, NEPA and CEQA recognize that there can be differences of opinion among experts.

the specific details of both active and passive raven control (DEIS 4-37) and how successful have they been at other LF sites where they have been used? How large (in terms of tpd and acreage) and where are the other LFs where they have been used successfully? Why were expert biologists unconvinced by the Eagle Mountain LF raven control measures?

Rail Spur ROW (DEIS 4-37):

557 As much desert vegetation as possible should be salvaged for replanting elsewhere, not only selected individual plants and/or optional public salvage as indicated in LF vegetation discussion DEIS 4-31). What compelling public purpose would justify not salvaging as much vegetation as possible for replanting elsewhere?

558 How successful have the "boardwalks or broad gravel 'beaches' between tracks" (DEIS 4-37) been in alleviating or reducing tortoise mortality along rail tracks elsewhere? Have these been implemented along the SP Mainline or other rail spurs? If so, where and how successful have they been? How long have they been used for desert tortoises? What studies evaluate the effectiveness of such proposed mitigation measures?

Tortoise depletion related to roadway traffic:

Desert tortoise populations have been "depleted up to a mile or more on either sides of roads when average daily traffic is greater than 180 vehicles". (Nicholson 1978 cited in USFWS 1993:D-20.) This population depression occurred along both well-used dirt and paved roads, and "even dirt roads with relatively low vehicle use can contribute to depressions in local desert tortoise densities" (Berry et al 1986 cited in USFWS 1993:D-20.) The effects of railroad use was assumed to be similar. (USFWS 1993:D-20.)

559 Why doesn't the DEIS discuss the potential environmental consequences to wildlife, including desert tortoises, of the increase in daily trips on SR 78 that would accompany operation and construction of the proposed LF project? Table 4-3 (DEIS 4-49) traffic figures on SR 78 and along the access route are considerably in excess of the above referenced 180 vehicles/day associated with depletion of tortoise populations within 1 mile of the road elsewhere.

How would the year round traffic associated with the operation of the proposed project impact tortoise populations along the route? What would the long term cumulative impacts be, who will assess these impacts and with what frequency? What would be the potential impacts of interruption of rail haul and the need to transport all MSW residue by 1,600 one-way truck trips/day (DEIS 4-51) in the event there is no alternative LF facility available (DEIS 4-48; 4-50; 4-51)? The DEIS (4-51) states that for anything other than a short time the environmental impacts would be significant, so why is there no discussion of those impacts on wildlife in the biological resources section?

560 Spill Contingency Plan for existing SP Main Line ROW:
The referenced "proposed contingency plan" for potential

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 557

Comment noted, please see response to Comment No. 549.

Response to Comment No. 558

Please see response to Comment No. 348.

Response to Comment No. 559

Traffic impacts on wildlife are described on page 4-23 of the Draft EIS/EIR. The tortoise impacts from traffic along SR 78, including any impact from trucking of MSW, would be mitigated by the provision of compensation lands to BLM as described in the Draft EIS/EIR. (See also, responses to Comment Nos. 95 and 337.) Emergency trucking impacts would not be significant because it is unlikely that such trucking would be required and because if emergency trucking is required, it would only occur for a short time. Because emergency trucking would only be allowed for a short time by the CUP, and therefore, impacts would not be significant, impacts from emergency trucking are not further discussed in the EIS/EIR.

Response to Comment No. 560

Section 4.1.12.2 of the Draft EIS/EIR contains a lengthy discussion about potential impacts associated with railroad accidents and response activities performed by the SP Railroad, including support by the Applicant. As noted in the Draft EIS/EIR, the MSW residue contingency plan provided in Table 4-26 would not direct basic railroad response procedures but would provide the basis for the railroad and the Applicant to appropriately respond to a MSW residue spill. The purpose of the plan is to allow for the accident site to be secured and important initial information to be provided to Arid Operations, Inc. and appropriate responsible agencies. This would allow responding parties to understand the situation quickly and be in a position to support cleanup activities performed by SP Railroad as necessary.

Response to Comment No. 560 (Cont'd)

In addition to the normal SP Railroad response activities in the event of a derailment which are described in Section 4.1.12.2 of the Draft EIS/EIR, a description of SP Railroad's environmental engineering personnel staff is also provided. These personnel consist of experienced professionals who manage the cleanups, if any, associated with derailment. Their cleanup activities include protection of sensitive species in the area, identifying the need for coordinating the activities of environmental technical contractors or specialists (e.g., biologists, remediation professionals), developing and implementing mitigation measures for any damage to the environment, and working closely with responsible agencies. SP Railroad's environmental engineering personnel can be at the site of a derailment within three to four hours.

spillage or derailment" (DEIS 4-38, 4-149) fails to include any information or proposed contingency actions in the event that any debris or spillage cannot be readily removed from the site. The contingency plan control states only: "Attempt to pick up debris, if any, that could potentially be blown into these potentially sensitive areas." (DEIS 4-149.) What actions or methods would be used for clean-up if materials cannot or cannot be quickly "picked up"? How and where would cleaned up materials and/or damaged rail cars be stored until removal? To where would materials be removed?

MSW Residue contains hazardous waste as defined by US EPA so rail haul residue will contain hazardous materials:

561 The description of potential environmental hazards resulting from rupture of a MSW residue rail car are underestimated because US EPA noted that in addition to household hazardous waste which amy end up in a MSWLF, there may also be hazardous waste from "Small Quantity Generators" (SQGs) of up to 1,000 kilograms of hazardous waste/month" in MSWLFs (US EPA 1988:33318; US EPA 1991:51080.) "Multiple SQG's and multiple sources of HHW may collectively result in substantial quantities of hazardous wastes in MSWLFs." (US EPA 1991:51058.)

Earlier in these comments we included US EPA discussion of liquids in MSW. Accordingly, to assert that any materials spilled "would be generally dry nonhazardous solids without potential... constituents of hazardous chemicals that could enter surface or ground waters" (DEIS 4-147) is inconsistent with US EPA characterization of potential MSW entering any proposed MSWLF. It is unlikely that there would be less potential for HHW and hazardous waste from SQGs in the urban areas of Southern California than elsewhere in the country. This is particularly true because there are approximately 25,000 generators of hazardous waste in Los Angeles county alone. (Martin 1994.)

Please review Western Waste's past operating history (Chen 1989 and Rabin 1989) and the USEPA 1991 Final Rule and correct characterization of potential for hazardous waste with the potential for transport to the proposed LF site. Why does the DEIS keep asserting that the proposed MSWLF would contain "generally" nonhazardous waste (DEIS 4-55; 4-147) without repeatedly reminding readers that MSW residue will also contain the potential for "substantial quantities of hazardous wastes" as described by USEPA (1991:51080)? Because 20,000 tons of MSW/day would be transported, the amount of hazardous material at the site would be substantial even though the percentage may be small.

562 Why doesn't the DEIS explain precisely how the transfer stations/MRFs would be able to remove all hazardous materials and liquids from the waste stream (DEIS 4-147)? Where are the details of how these materials would be detected and removed from the 20,000 tpd being processed through the transfer stations/MRFs? How would SP or the Applicant determine the nature of the hazards from MSW residue with HHW and potential hazardous waste from a number of SQGs within any given rail car? Will the operator keep manifest for each car to indicate the communities, businesses, or industries

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 561

The Draft EIS/EIR contains a description of the potential volume of hazardous materials which may be present in the MSW residue. This description indicates that MSW residue would be sorted for hazardous materials at transfer stations/MRFs. After completion of these sorting activities, between 0.3 and 0.5 percent of the MSW waste stream is expected to consist of household hazardous waste. Based on these very small amounts, the statement that the materials potentially spilled would be generally dry, nonhazardous solids without the potential to create noxious or toxic gases or constituents of hazardous chemicals that could enter surface or ground water is accurate. See also response to Comment No. 110 which includes quotes from the EPA in its preamble to the issuance of the Subtitle D regulations where the EPA indicates that it expects the amount of hazardous materials in MSW residue to decline in the coming years, thereby making the character of leachate less aggressive. This would support the statements made by the Draft EIS/EIR that the percentages of household hazardous materials in MSW residue are expected to decline. This would also include small quantity generator hazardous waste.

Please see response to Comment No. 216 concerning partner operating records.

Response to Comment No. 562

Section 4.1.12.2 contains a lengthy discussion about potential hazardous materials in the waste stream and acknowledges that after sorting procedures that occur at transfer stations/MRFs, some household hazardous materials are expected to be present in the MSW residue. Please see responses to Comment Nos. 16. 323, 324, 325, and 329. In fact, the regulations concerning landfill environmental controls, including base liner and leachate control requirements, are designed with the anticipation that household hazardous wastes would be deposited in landfills (see also response to Comment No. 110 which contains EPA's discussion of this issue in its preamble to its issuance of the Subtitle D regulations). Please see response to Comment No. 235.

Concerning record keeping, Section 2.1.4.9 of the Draft EIS/EIR contains a discussion which describes a proposed record keeping procedure that would be followed by the Applicant, subject to modification as required in a Waste Discharge Order permit to be issued by the RWQCB. That

Response to Comment No. 562 (Cont'd)

discussion describes how a computer-based tracking system would be used for the containers destined for the proposed landfill to assure that only MSW residue from transfer stations/MRFs that properly screen MSW for recyclables and hazardous wastes would be received at the proposed landfill. In the event of a spill of MSW residue, the Applicant would make all available information related to the contents of each container available to SP and regulatory agencies that request such information.

(including each potential SQG and the potential hazardous material from each potential SQG) in each rail car? Who would assure that no hazardous materials were included in refuse from SQGs? How would these inspections be made, and with what frequency? In the event of an accident or derailment, will the rail partner/operator provide the information on all potential sources (including potential SQGs) of hazardous materials which could potentially be released into the environment? If not, why not?

563 What testing would be done in the event of a release of any MSW residue, fuel or lubricant into surface water along the SP line in the event of a gradual leak as trains pass over bridges and trestles over wet or dry washes, Salt Creek ACEC, or canals? What inspections will be done of all rail cars, engines and couplings for potential equipment failure or leakage prior to crossing open water, washes, and/or Salt Creek ACEC? How frequently will these inspections be made and by whom? Will inspections be done for each rail trip including those made after dark? In the event of a spill or evidence of a leak, who will certify that adequate clean-up has been accomplished?

564 Where are the DEIS references to methods for responding to a potential MSW spill along the proposed rail spur ROW?

Potential Gas Pipeline to Niland:

565 What monitoring would be done to insure that there are no leaks or ruptures along the proposed Niland gas pipeline?

Tortoise Habitat Compensation: Mesquite vs Eagle Mountain

566 Why does the DEIS propose compensation at so much a lower figure than was required by the Biological Opinion for the proposed Eagle Mountain LF (USFWS 1992)? DEIS states that:

> To offset direct impacts to 3657 acres of BLM Category III desert tortoise habitat, the project Applicant shall deed an equal (1:1 ratio) or higher number of acres of Category I habitat to the BLM. Acquisition areas will be approved by the BLM, and shall be transferred to the BLM... (DEIS 4-39.)

By contrast the compensation acreage for Eagle Mountain ROWs was much greater. Indeed,

> As compensation for the loss of 150 acres of Bureau Category III desert tortoise habitat, habitat off-site will be purchased and dedicated as permanent open space. Using a Bureau compensation formula, a multiplying factor of 2.5 has been calculated. Therefore, 375 acres of desert tortoise habitat will be purchased as compensation for impacts. The exact parcel(s) to be purchased will be selected under the direction of the Bureau and will be in the Chuckwalla Management Area. (USFWS 1992:5.)

Given this information, will the compensation for direct impacts on desert tortoise Category III habitat for the proposed Mesquite LF be 9142.5 acres of Category I habitat within the Chuckwalla Bench ACEC (a 2.5 multiplier as for Eagle Mt. LF) rather

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 563

In the event of a release of MSW residue, fuel, or lubricant, testing required by regulatory agencies would be performed. Please see response to Comment No. 546. The proposed containers for the MSW residue would be enclosed so that liquids, if any, would not leak from the MSW residue into the railroad car or possibly onto the rail track during the trip to the landfill. The containers would be checked and visually inspected upon arrival at the landfill by landfill workers. Any containers with observed liquid spillage or that otherwise have any indication of damage would be removed from service and replaced until they could be fixed.

Inspection of trains and railroad tracks is performed by SP Railroad to properly monitor equipment used. These activities occur regularly and in accordance with federal regulations and requirements of the California Public Utilities Commission.

Response to Comment No. 564

The SP Railroad would be responsible for delivery of the MSW residue containers to the landfill facility. Any spillage that occurs on the SP Main Line or on the project rail spur would be responded to in the same way. SP cleanup crews would respond on the rail spur in the same way as is described for response on the mainline since the spillage, if it occurred, would be from an SP train due to an SP derailment. This Final EIS/EIR indicates that this responsibility extends to the rail spur.

Response to Comment No. 565

At this time, a conceptual design of a potential pipeline to Niland has not been completed, therefore, specific leak monitoring requirements cannot be determined. As shown on Table 1-3, this potential pipeline has been addressed to the extent possible in this EIS/EIR. The Mesquite Regional Landfill CUP would require future environmental review prior to the permitting, construction, and operation of a gas pipeline to Niland.

Response to Comment No. 566

BLM applies its "Compensation Formula" to determine impact mitigation ratios. For the proposed Mesquite Regional Landfill Project, the formula yields a compensation ratio of 1:1. Compensation lands would be managed

Response to Comment No. 566 (Cont'd)

consistent with the Chuckwalla Bench ACEC Management Plan (BLM, 1986), which is available for public review during normal business hours at the BLM El Centro Area Resource Office, 1661 South 4th Street, El Centro, California.

than merely 3657 acres at the DEIS proposed 1:1 ratio? If not, why not? Would BLM also agree that compensation acreage remain as undeveloped open space in perpetuity? If not, why not?

Sec. 4.7.3.2 CUMULATIVE BIOLOGICAL IMPACTS are significant in spite of Applicant's Mitigation proposals:

567 Despite the conclusions of the DEIS (p. 4-210; 4-211) that impacts to biological resources would not be significant after mitigation, we conclude that habitat lost is habitat lost and that even with mitigation the impacts of such a large loss of habitat adjacent to the open pit, cyanide heap leach Mesquite Gold Mine are cumulatively significant to wildlife and are not fully mitigable. Further, the cumulative impacts of lost habitat and potential subtle long-term as yet unknown off-site impacts associated with the proposed Mesquite Regional Landfill and the proposed Eagle Mountain RLF and proposed Amboy Landfill for which environmental documents have been prepared in addition to the proposed Chocolate Mountain RLF. The mortality rates associated with increased rail haul traffic and roadway vehicular traffic, in addition to mining operations and exploration, grazing, OHV activities, and military bombing are cumulatively significant and unmitigable. DEIS is inadequate because it fails to consider cumulative impacts on wildlife of all such human activities in the project vicinity as required by CEQA. Furthermore, DEIS provides no documentation that the Applicant's proposed mitigation measures for the project alone could or would result in "insignificant cumulative impacts" to desert tortoise (DEIS 4-210). DEIS ignores impacts from the adjacent Mesquite Mine.

Why is no Environmental Mitigation Trust Fund (similar to that of MRC for Eagle Mountain) proposed by Mesquite project applicant?

568 Mine Reclamation Corp. (MRC) would establish an "Environmental Mitigation Trust Fund" (EMTF) whereby $1 for every ton of waste deposited at the Eagle Mountain LF would go into a special trust fund administered by the Riverside County Board of Supervisors. 85% of the fund would be mandated for the acquisition of natural open space lands in 5 Wilderness Study Areas, and inholdings and buffer areas to add to what will become the Joshua Tree National Park, and other areas where federal agencies have on-going land acquisition projects such as in Areas of Critical Environmental Concern (ACECs). It is anticipated that the fund would create $57 million in revenues during the first 10 years of operation. (Mine Reclamation Corp. no date; portions appended as Exhibit L.)

Why hasn't the Mesquite RLF project Applicant proposed a similar Environmental Mitigation Fund to provide revenue for open space acquisition and environmental protection in Imperial County? Will the project Applicant set forth specific proposals for an Environmental Mitigation Fund for acquisition of inholdings and buffer areas adjacent to sensitive wilderness areas, wildlife refuges and ACECs within Imperial County prior to release of the draft Revised EIS and submit such proposals for public review and comment? If not, why not?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 567

The mitigation measures required by this EIS/EIR exceed the Applicant's original mitigation proposal. With implementation of the required mitigation measures, BLM and the County of Imperial found cumulative impacts not to be significant. The commentor's opinion that biological resource impacts are cumulatively significant is noted.

The heap leach pad area along with other areas of mining disturbance would be used for the proposed landfill. Cumulative impacts would not be significant because of the large amount of desert microphyll woodland and creosote bush scrub in the Colorado Desert. Please note that the majority of the Chocolate Mountain Gunnery Range in the vicinity of the project site is mountainous and supports different species than the proposed landfill site. Cumulative impacts of the proposed Eagle Mountain and Chocolate Mountain regional landfills and the Mesquite Mine are described in Section 4.7 of this EIS/EIR and are not significant. The proposed Amboy RLF is far enough away that there would not be any substantial cumulative biological impacts. Please see responses to Comment Nos. 197, 339, 341, 348, and 516 to 560.

Response to Comment No. 568

The Applicant would convey approximately 5,898 acres of private land to the BLM as exchange for the 1,750 acres of federal land on-site and as compensation for the loss of approximately 3,657 acres of undisturbed Category III desert tortoise habitat. Provision of funding by the Applicant for the purchase of additional land would not be required with implementation of the mitigation measures identified in the EIS/EIR. Therefore, an environmental mitigation fund is not required.

569 Why no Long Term Monitoring Team to address long term impacts of landfill operation on adjacent desert ecosystems which cannot be fully predicted? MRC EMTF provides one for Eagle Mountain Project.

Up to 15% of the MRC Eagle Mountain EMTF revenues are committed to funding for the Long Term Monitoring Team of full-time field biologists from federal agencies which would be overseen by a Monitoring and Research Methodology Oversight Committee composed of academic experts. There would also be a separate Citizens Oversight Committee to provide an avenue for community concerns and provide reports to regulatory agencies and media regarding the status of the project and mitigation measures. (Mine Reclamation Corp. no date; Exhibit L.) Why aren't there any similar provisions to address potential impacts, oversight and public concerns related to the proposed Mesquite landfill project? Will the Mesquite Applicant submit proposals for such monitoring team, oversight committee and citizens review committee before the release of the Final EIS and open such proposals for public review and comment? If not, why not?

Sec. 3.1.6 TRANSPORTATION: AFFECTED ENVIRONMENT

570 Agricultural Plant Wastes:

What precisely is meant by "relatively small amounts of agricultural plant material that would be diverted from burning to provide emission offsets" (DEIS 3-66)? How much agricultural plant waste is intended for transit to the proposed LF site, in terms of tons/day, or size of the 4 truck loads/day (DEIS 4-69)? What is the anticipated moisture content of the agricultural waste intended for transit? What percentage of the total Imperial County agricultural plant waste is represented by 4 truck loads/day? How many other projects have proposed to offset emissions by removing a certain amount of agricultural plant waste from burning in the fields? What is the total amount of agricultural plant waste proposed by other projects to be removed from burning as offsets for those cumulative projects. Have such offset project uses been successful and met the targeted objectives?

571 What is the current capacity of MSW residue that is currently being transported (if any) by rail from the SP City of Industry intermodal? Does this intermodal have the capacity to handle both the proposed 20,000 tpd to the proposed Mesquite LF and the 20,000 tpd to the proposed Eagle Mountain LF site?

Interstate Commerce:

572 Since the DEIS acknowledges that rail transit activities are considered as interstate commerce, and that the types of cargo transported is generally unrestricted (DEIS 3-69) what written assurances or guarantees will be provided (that are legally binding on present and subsequent partners or owners) to ensure that the MSW residue and/or other materials to be landfilled entering the proposed project site will actually be from Southern California (DEIS S-5) rather than from outside California in the future? Why doesn't DEIS Sec. 3.1.6.3 and elsewhere mention that the SP Main Line "connects the Southern Pacific's West Coast, Southern and Midwestern rail systems (Appendix A NOP p.4-6) which could be used for interstate transport of waste to the proposed site?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 569

The proposed project would provide for the monitoring of ravens, breeding birds, vegetation, local desert tortoise, and other terrestrial species as outline in the Biological Assessment for the Proposed Action Please see response to Comment No. 337. Given the differences in the proposed Mesquite Regional Landfill site and rail spur and the proposed Eagle Mountain Regional Landfill site and private rail line, this level of monitoring would be sufficient.

Response to Comment No. 570

Up to approximately 210 tons per day of agricultural stubble could be diverted from burning to provide emissions offsets. This material could be diverted in many different ways including transfer to a composting facility, tilling the material back into the soil, or transferring to the proposed Mesquite Regional Landfill for inclusion as amendment to daily cover or disposal in the landfill. If the materials are transferred to the proposed Mesquite Regional Landfill, this would occur using up to ten 20-ton trucks per day when the landfill is operating at its maximum 20,000 tpd MSW residue operations capacity. The additional traffic related to the agricultural trucks was included in the transportation analysis with the determination that they would have no significant additional impact on traffic.

As stated on page 4-91 of the Draft EIS/EIR, ICAPCD maintains records of agricultural burning, from which Figures 4-6 through 4-9 were developed to show the availability of these offsets. Comparison of these figures with the "as received" stationary source emissions curves in Figures 4-10 through 4-13, after subtracting the 137 lbs/day threshold, shows the adequacy of these offsets. The ICAPCD has not yet developed or utilized diversion of agricultural burning to offset new or modified stationary sources. .

Diversion of agricultural plant material from burning would be a potential source of emission reduction credits for offsetting no matter how that plant material is otherwise disposed. For example, the material could be tilled into the soil, in which case no organic waste or moisture would be added to the proposed landfill. If the plant material is taken to the landfill, then the maximum amount can be calculated by subtracting the offset threshold of 137 lbs/day from the maximum stationary source NO_x emission rate of 650 lbs/day shown in Table 4-9 of the Draft EIS/EIR and

Response to Comment No. 570 (Cont'd)

dividing the difference by the NO_X emission factor in Table 6.10 of Appendix F (Air Quality Analysis). The resulting 210 tons per day of agricultural plant material would be less than 0.8 percent of the 20,000 tons of MSW residue landfilled per day, and would, therefore, have no significant effect on landfill moisture or LFG generation, and would not create leachate. It should be noted that composting is not proposed as part of the project at this time (though if such a facility is designed in the future, appropriate environmental review would be required), and that the phrase "agricultural plant material" is limited to that which is burned and recorded in the ICAPCD "burn" inventory.

Response to Comment No. 571

There is currently no MSW residue being transported by rail from the SP Railroad City of Industry intermodal or its downtown LATC intermodal. These facilities are currently permitted to handle container traffic at volumes well in excess of what is proposed by the Applicant. Their ability to handle additional traffic in excess of what is proposed for the Mesquite Regional Landfill would depend upon current and future variations in business traffic, and priorities, etc., for those facilities. The decision of whether to handle all or portions of this business at the SP Railroad City of Industry or the LATC yard would depend upon variations in future railroad business. Based on current capacities, SP could theoretically handle containers with MSW residue destined for the proposed Mesquite Regional Landfill and another regional landfill through a combination of the City of Industry and LATC facilities (SP, 1995). This EIS/EIR analyzes operations from the LATC to be conservative since this represents the furthest distance from the proposed landfill.

Response to Comment No. 572

Please see response to Comment No. 200, last paragraph.

573 Only 5 of the 90 public at-grade rail crossings along the proposed route are in Imperial County (DEIS 3-72 to 3-74.) If the Eagle Mountain LF project proceeds as it is being permitted, why wouldn't the delays in urban areas near rail yards will be considerably greater since that project also proposes to rail haul MSW residue from Southern California? Wouldn't accidents also potentially increase? Are there any time of day restrictions for the operation of transfer stations/MRFs and/or rail departure times from the LATC which would impact scheduling of MSW rail haul and/or LF operations?

Sec. 4.1.6 TRANSPORTATION ENVIRONMENTAL CONSEQUENCES

574 DEIS admits that: "Transfer trucks hauling containers of compacted MSW residue from transfer stations and MRFs to LATC intermodal facility could potentially be considered a project related activity." (DEIS 3-83.) However it then declines to describe potential routes or discuss the local impacts along those routes even though those truck haul routes would be different from routes from transfer stations and MRFs to existing landfills. Because there are several other rail haul mega landfill proposals for the Southern California deserts, including 2 other rail haul proposals which would also use the SP Main Line, it is unrealistic to assume that, if approved, the Mesquite project would use only the existing transfer stations/MRFs and that all other projects would require construction of new transfer stations/MRFs and new intermodal facilities.

Therefore, DEIS is inadequate because it fails to discuss the truck haul routes necessary to transport MSW residue to intermodal facilities even though DEIS 4-70 indicates that air quality impacts of truck haul from transfer stations/MRFs to LATC is analyzed" and identified as project components (DEIS 4-72, 4-73) no matter how well disguised. The transfer stations/MRFs are in fact the point of origin for MSW residue transport to the proposed LF.

575 What are the potential environmental consequences of the need to use 1,600 one way trips for truck-haul (DEIS 4-51) to replace rail haul of 20,000 tpd MSW residue in the event of interruption of rail service (DEIS 4-48; 4-50; 4-51)? What would be the impacts on biological resources, air quality and transportation impacts, particularly on passage through San Diego and through Mountain Springs Grade where I-8 passes through the Jacumba Mountains? Why shouldn't the DEIS address the impacts on the affected environment in the event Murphy's Law functions in the future as it has in other places in the past? Murphy's Law is likely to be more applicable in the future as rail traffic increases, as population grows, and as climate becomes more unpredictable, resulting in potentially larger and/or more frequent storm events.

576 Because much of the information in the DEIS is updated only to 1987 or 1988 or 1992, there is no time frame for the statement that there were only 17 service interruptions due to accident or derailment along the rail-haul route since 1987 (DEIS 4-51). 17 accidents between 1987 and what year? Where was each of the accidents and the nature of the accident? The derailment of 8

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 573

The cumulative impacts of the proposed Mesquite Regional Landfill and Eagle Mountain Landfill are found not to be significant in Section 4.7.3.3 of this EIS/EIR. There are no time of day restrictions required to mitigate transportation impacts.

Response to Comment No. 574

The trucking of MSW residue to the existing intermodal facilities at the LATC or City of Industry from existing MRFs would involve roads and freeways in the Los Angeles area. Because these facilities are existing permitted facilities that generate truck trips, and because MSW-residue trucking would not exceed the historical trip generation of these facilities, impacts would not be significant. Also, please see response to Comment No. 15. Air emissions for truck haul between the MRFs and intermodals were calculated so that the total emission of pollutants within the various air basins under the Proposed Action and Alternatives could be compared and contrasted.

Response to Comment No. 575

This EIS/EIR found that the impacts of emergency truck haul along existing highways would not be significant because it would be extremely unlikely that emergency truck haul would be required based on the past reliability of the SP Main Line and the surge capacity that would be built into the MRF/Intermodal system, and the short time period that would be required to re-establish rail haul in the event of a disruption. Please see response to Comment No. 469.

Response to Comment No. 576

Please see responses to Comment Nos. 42 and 501.

hazardous materials tank cars among the derailed cars with a 43 hour delay (DEIS 4-51) indicates that Murphy's Law is indeed applicable along the proposed use of the SP Mainline. What were the underlying causes for the derailment as determined by CPUC investigation? To what extent would increased rail traffic along the SP mainline increase the potential for future such derailments of MSW trains or trains hauling other hazardous materials (DEIS 4-51) or potential future liquified methane (DEIS 4-52)? What is the number and frequency of anticipated passenger trains when passenger travel between Los Angeles and Calexico/Mexicali is instituted (Cal Trans 6/22/94)? How will the increase in passenger trains affect MSW rail haul schedules? Will MSW rail haul to the proposed site necessitate the addition of a second track?

577 MSW residue will contain hazardous waste as defined and described by USEPA in its 1991 Final Rule for MSWLFs as discussed elsewhere in these comments. Consequently, MSW rail transport will transport residue containing hazardous waste, assertions of DEIS 4-55 etc. to the contrary. Details of the referenced (DEIS 4-55; 4-5) MSW Residue Spillage Contingency Plan in Sec. 4.1.12 do not satisfactorily answer the questions raised related to impacts on biological resources elsewhere herein. Where and how would damaged MSW containers be handled and stored or removed from site? Why hasn't the "project specific MSW Residue Contingency Plan" (DEIS S-33; 4-58) been developed and included within the DEIS for public review and comment? Use of the phrase "shall develop" implies a sometime in the future action.

578 Is the addition of the phrase "not knowingly allow" with reference to transport of liquified methane (DEIS S-33; 4-57) a potential loophole to avoid liability or responsibility in the event of violations, leaks or an accident?

579 Why wasn't an alternate truck haul route (DEIS S-33: 4-58) included in the DEIS for public comment and review? "Shall" implies that the plan is yet to come.

Sec. 4.5.3.3 CUMULATIVE IMPACTS TRANSPORTATION:

580 DEIS is inadequate because it fails to discuss the local impacts of truck haul of MSW residue from transfer stations/MRFs to intermodals along routes where these cumulative impacts do not now exist. What are the impacts and cumulative impacts of use of a transfer station/MRFs in Imperial County and the increased traffic associated with the use of such transfer stations/MRFs? DEIS does

581 not adequately address the cumulative impacts of three proposed rail haul landfills using much of the same SP Mainline route and the impacts associated with potentially more than doubling the current rail traffic on the route with more than one MSW rail haul project and the addition of additional passenger service on the SP Main Line.

582 How many trains are expected along the SP mainline route if passenger service is established from Los Angeles to Calexico and Mexico City (Cal Trans 6/22/94)? What are the Cal Trans and SP projections of NAFTA induced increased rail haul of agricultural,

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 577

This EIS/EIR adequately addresses transportation-related impacts, including potential spills of MSW residue, to biological resources. MSW is a nonhazardous waste as defined by the State of California and U.S. EPA despite the fact that small quantities of hazardous materials may be contained in the MSW. Therefore, the Draft EIS/EIR description of MSW-residue as nonhazardous is accurate. The Draft EIS/EIR acknowledges that small amounts of hazardous materials may be present in the MSW residue after sorting at transfer stations/MRFs (see Project Description, Section 2.1.8; and Environmental Health and Safety discussion, Section 4.1.12.2). The biological impact analysis contained in Section 4.1.3, the transportation analysis contained in Section 4.1.6 and the environmental health and public safety analysis contained in Section 4.1.12.2 each contain discussions about potential impacts to wildlife and to the public resulting from potential rail accidents. Included in these discussions are considerations of the potential for these small amounts of hazardous materials. The analyses conclude that the potential impacts from a rail accident would not be significant because of SP's clean up procedures and the MSW residue Spillage Contingency Plan.

The MSW residue Spillage Contingency Plan provided in Table 4-26 and Section 4.1.12.2 of the Draft EIS/EIR is substantially complete as presented. Additional information to be added include names and phone numbers of the Department of Health Services in Los Angeles, Riverside and Imperial counties. This information will change over time and so will need to updated on a regular basis.

Damaged containers would be repaired on-site or transported by truck or rail off-site for repair.

Response to Comment No. 578

Transportation of methane gas is subject to federal Department of Transportation (DOT) regulations. Once the Applicant has loaded methane gas onto a rail car and the car leaves the site, the Applicant has no control over the subsequent handling of that methane. Therefore the phrase "not knowingly allow" was incorporated into the mitigation requirements.

Response to Comment No. 579

An alternative truck haul route in the event of an emergency where the train line is not in operation, is described in Section 4.1.6.2 of the Draft EIS/EIR. The impacts of the route that would be from coastal areas on Interstate 5 south to Interstate 805 and then east on Interstate 8, north on State Route 11 and east on State Route 78 to the proposed landfill, are analyzed in this section. The impacts of the potential emergency truck haul are determined not to be significant because of its remote likelihood and temporary nature. The activity may never occur during the life of the project but in any circumstance would only occur for several days if no other alternatives were available. The mitigation measure listed in Section 4.1.6.3 that the commentor refers to is a requirement that the Applicant work with appropriate state and local agencies to assure that the emergency truck route is comprised of roads that provide an acceptable level of service and avoid single land roads through rural areas to the greatest extent practiCal.If these state and local agencies determine that due to future roadway improvements in the region, an alternative route is more appropriate, an alternative route would be used. The potential impacts of an alternative route would be substantially the same and the criteria as to whether or not an alternative route would be used would be based on the environmental impacts of the proposed route that has been analyzed in the EIS/EIR.

Response to Comment No. 580

At this time, there are no plans by the Applicant or Imperial County to construct transfer stations or to haul MSW residue from Imperial County to the proposed landfill. Therefore, the requested information cannot be provided and is beyond the scope of this EIS/EIR.

Response to Comment No. 581

The cumulative rail haul impacts of the proposed Mesquite, Eagle, and Chocolate Mountain landfills are adequately addressed in Section 4.7.3.3 of this EIS/EIR.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 582

Please see response to Comment No. 42. As described in this response, double tracking would not be required for reasonably foreseeable increases in freight traffic. Double tracking in some areas would be required to assure on-time performance of passenger trains with or without the proposed rail haul landfill project. The information requested in this comment is purely speculative and is not required for an adequate environmental review under NEPA and CEQA.

forestry and manufacturing goods to and from Mexico via the SP mainline through Imperial County? Will a second track be necessary to accommodate passenger service, 3 proposed regional LFs, and NAFTA induced rail haul?

583 What is the anticipated increase in highway passenger car and truck transit along Southern California Interstates and highways suggested as truck haul routes if rail haul is interrupted? What would be the cumulative impacts of truck haul in addition to anticipated increase in highway travel by other vehicles?

Sec. 3.1.7 NOISE AFFECTED ENVIRONMENT

584 Why does the DEIS state that there are "no permanent residents" in the area of the proposed project (DEIS 3-77; 4-59) when AOI 's Bob Filler pointed out the residence of Mr. Singer adjacent to the Mesquite Mine site during the Planning Commission bus trip? Does or does not Mr. Singer reside at the mobile home pointed out as his residence? If he lives there, information about proximity of closest residences is both inaccurate and misleading.

585 Why does DEIS fail to include wildlife in the vicinity of the proposed project site and along the proposed rail spur as being among the potential noise receptors (DEIS 4-59), but include wildlife as a receptor of noise at the Mesquite Mine (DEIS 3-78) and proposed LF site (DEIS 3-77)? Bondello (1976) and Bondello and Bratstrom (1979) have described the effects of OHV sounds on the acoustical sensitivity and behavior of 2 species of desert lizards, 1 species of amphibian and 1 species of small desert mammal. Three of these four species have been observed either on the proposed project site of adjacent to the site on the Mesquite Mine site according to Appendix D, and another species of Uma, the fourth studied genus, was found at the project site. (Appendix D.) What are the potential impacts of noise and vibration on wildlife, especially small terrestrial mammals and reptiles?

Further, because the "rail-haul route from SP's existing LATC rail yard to the proposed project rail spur is also considered part of the affected environment for the proposed landfill" (DEIS 3-77), all the residents and wildlife along that rail route would be potential noise receptors for the proposed project. Therefore, wouldn't the numbers of individuals (humans and wildlife) affected be significantly greater than indicated in Sec. 3.1.7? How have the residents and property owners along the rail route been made aware of this project?

586 Why does DEIS state that the Draft Imperial County General Plan Update contains applicable regulations to noise generated at the County level (DEIS 3-78) rather than reference the 11/93 adoption of the General Plan Update and its associated Final EIR?

Sec. 4.1.7 NOISE ENVIRONMENTAL CONSEQUENCES
Sec. 4.7.3.4 NOISE CUMULATIVE IMPACTS

587 DEIS discussion of environmental consequences resulting from noise generation associated with the proposed LF project and construction and use of the rail spur (Sec. 4.1.7) is inadequate

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 583

Section 4.1.6.2 of the Draft EIS/EIR contains an evaluation of potential impacts if the emergency truck haul route is used. According to that evaluation, inevitable bunching of trucks would occur along the various highways of the route which would create traffic impacts in various areas. In addition, if the emergency truck haul were to occur during winter weekends from October 1 through May 31, traffic impacts in the Imperial Sand Dunes Recreation area would also be significant. The analysis determines, however, that the environmental impacts of emergency truck haul would not be significant because the likelihood of its use is so remote and if it were to be used, it would only be temporary, for a few days. This activity likely would never occur during the life of the project but in any circumstance would only occur for several days if no other alternative were available.

Response to Comment No. 584

Arid Operations has an agreement with Mr. Singer that he will relocate should the proposed project be approved, therefore, the information in the Draft EIS/EIR is accurate.

Response to Comment No. 585

Section 4.1.3.2 of this EIS/EIR contains an analysis of the potential impacts to wildlife from the proposed project. The analysis considers potential noise impacts to wildlife from rail haul and project operations. The analysis determines that the potential impacts to these activities would not be significant due to acclimation of wildlife to noise events that normally occur along the rail haul route and because industrial activities generating noise (the Mesquite Mine and gravel withdrawal activities) are already present in the area. Further, a discussion is provided on the potential noise impacts to the desert tortoise. This analysis determines that noise impacts to the desert tortoise would not be significant.

Also, the noise analysis contained in Section 4.1.7.2 of the Draft EIS/EIR contains an evaluation of the potential impacts due to noise along the rail haul route. This analysis determines that the CNEL (this is a weighted average of daily noise events that gives increased importance to noise-generated sensitive times such as evening and night time) calculated for the rail haul route in the Coachella Valley area using

Response to Comment No. 585 (Cont'd)

existing trains and the average number of proposed MSW residue trains for the Mesquite Regional Landfill, and allowing for appropriate penalties for trips that occur during sensitive periods is 76 dBA. This is only 2 dBA above the background measurement of 74 dBA, which was measured at 100 feet from the track. Most noise studies recommend that a CNEL increase of 3 dBA or more would constitute a significant impact. This increase of less than 3 dBA along the Coachella Valley area indicates that the potential impact due to noise would be less than significant. The analysis of noise impacts in the Coachella Valley area would apply to the entire rail haul route. There are no noticing requirements for increased rail traffic on an existing rail line.

Response to Comment No. 586

This Final EIS/EIR has been revised to incorporate the adopted General Plan Update and Final EIR. This does not change the results of the noise analysis contained in Chapter 4 of this EIS/EIR.

Response to Comment No. 587

Section 4.1.3 (Biological Resources) of the Draft EIS/EIR contains a discussion of the potential impacts of noise on wildlife in the project area. That discussion also includes an analysis of potential impacts due to noise on the desert tortoise. The discussion in Section 4.1.3 concludes that potential impacts to wildlife from noise in the project area would not be significant.

The cumulative impacts discussion for noise (or wildlife) does not contain an analysis of cumulative impacts on off-site wildlife from noise generated by the landfill project and rail spur in addition to noise from the Mesquite Mine, off highway vehicles in the sand dunes area and air craft operating out of the Chocolate Mountain Aerial Gunnery Range for several reasons. First, these activities are widely dispersed in location, ranging from one to several miles apart. As a result, the noise from one of these activities is not likely to impact wildlife exposed to noise from another one of these activities. Second, the proposed landfill project would be fenced to prevent larger wildlife from entering. Noise levels at the proposed project boundary from the Mesquite Regional Landfill are not expected to be very high and in many cases would equal background noise volumes. As a result, the additive affects of noise from the proposed

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 587 (Cont'd)

landfill to any existing noise would be very small at those locations. Third, existing wildlife are likely to have become habituated to existing noise impacts. The addition of up to ten train trips spaced throughout each day along the rail spur or noise associated with the landfill, which is already in the mine area that is an existing noise source, would not have a cumulatively significant impact.

because it fails to discuss the "potential off-site landfill activity noise impacts" on sensitive wildlife receptors in the vicinity of the project site and rail spur. Additionally, the cumulative impacts discussion of noise impacts is inadequate because there is no discussion of the cumulative impacts on off-site wildlife from noise generated by the proposed landfill project and rail spur use in addition noise from mining activity, OHV activity and Chocolate Mountain Aerial Gunnery Range.

588 Appendix D discussed potential impacts of noise and vibrations on the desert tortoise. Why then is there no similar discussion under Noise sections? What are the incremental cumulative impacts of noise, vibration, and night lighting of the additional rail, roadway, and proposed LF operations on wildlife behavior and social interactions?

589 The cumulative impacts discussion of noise associated with the increased rail usage along the SP mainline is inadequate because it fails to consider the potential impacts on increased numbers of sensitive residential human receptors who would be living in areas designated for future residential development along the rail line on the east side of the Salton Sea as anticipated by the 11/93 Imperial County General Plan Update. The County General Plan Update projected major population growth along the eastern side of the Salton Sea. Just because the area is rather sparsely populated today, there is no indication that populations will not increase as planned by the General Plan Update during the next twenty years of the Plan or during the 100 years active life of the proposed landfill project.

Additionally, why does the DEIS fail to consider the cumulative noise impacts on future residential growth along the rail route in Riverside, San Bernardino and Los Angeles Counties and the cities of those counties, as indicated in their General Plans?.

APPENDIX F AIR QUALITY ANALYSIS
Sec. 3.1.8 AIR QUALITY AFFECTED ENVIRONMENT

590 DEIS Sec. 3.1.8 discussion of affected environment for air quality is more than inadequate, it is misleading, and it does not accurately reflect information contained in the Air Quality Analysis in Appendix F. Because misrepresentations and omissions appear so significant, the DEIS should be rewritten in a revised EIS/EIR and resubmitted for the full 90 day comment period. DEIS impermissibly excludes discussion of air quality impacts of truck haul from transfer stations/MRFs to intermodal along routes where such truck traffic does not now exist, even though DEIS identifies such activity as presently part of the project related activities (DEIS 3-83). Because the project depends on such truck haul, it should be analyzed as part of the project (DEIS 4-70) for local impacts rather than submerging impacts as a small part of SOCAB air emissions.

591 On the inside cover sheet, why is there no indication of which consultant prepared the Air Quality Analysis Technical Appendix F such as is identified for other appendices? Why does the first

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 588

Please see response to Comment No. 587 concerning the analysis contained in Section 4.1.3 of the DEIS/EIR of potential impacts to wildlife from noise and vibrations from the proposed project. See Section 4.1.11 for discussion of potential impacts of night lighting on the area.

Response to Comment No. 589

The Noise Element of the Imperial County General Plan will regulate development to preclude the possibility of cumulatively significant noise impacts from trains on the SP Main Line. The SP Main Line is recognized as a noise source in Figure 1 and in Section II(B)(1)(b) of the Noise Element. The proposed Mesquite Regional Landfill rail spur is recognized in this same section of the Noise Element. The Noise Element also establishes a noise impact zone for railroads (Section IV(B)) and the requirement for acoustical analyses for projects requiring discretionary approval. Riverside, San Bernardino, and Los Angeles counties and cities along the rail line in these counties have similar noise elements in their general plans.

Response to Comment No. 590

Please see response to Comment No. 172. The truck hauling of MSW residue from transfer stations/MRFs to the LATC would occur on a myriad of roads, just as the current or No Action Alternative hauling from these same transfer stations/MRFs occurs on a myriad of roads. The Draft EIS/EIR identified the project-related truck emissions in Table 4-13, Section 4.1.8, and both proposed and current truck emissions in Appendix B (Emissions Tables) of Appendix F (Air Quality Analysis). Detailed analysis of the environmental impacts of these truck emissions is not required because there is no net increase of truck emissions.

Response to Comment No. 591

Appendix F, the *Air Quality Technical Report for the Proposed Mesquite Regional Landfill, Imperial County* was finalized in March 1994. It was prepared by Environmental Solutions, Inc. as indicated in Chapter 7 of this EIS/EIR. The typo on page 3-83 of the Draft EIS/EIR has been corrected in this Final EIS/EIR.

yellow insert sheet have a 12/93 date, when the very next title page has a 3/94 date (Appendix F)? Why does the DEIS 3-83 cite Appendix as being prepared by ESI in 1992? Who did what and when?

592 Why should air quality impacts of the rail-haul project be compared only with an alternative of truck haul impacts in Los Angeles County rather than to changing air quality impacts in Imperial County? (Appendix F:1-1.)

593 What are the preliminary results ("expected sometime in 1994") of PM_{10} sources and exceedences in Imperial County in the Desert Research Institute study during 1992 and 1993 (Appendix F:1-2)?

594 DEIS should include the purposes of both primary and secondary NAAQ standards as in Appendix F:1-4. The last sentence of Appendix F Sec. 1.2.2.1 #4 (p.1-5) is missing any indication as to what the proposed Imperial County Air Pollution Control District (ICAPCD) proposed 1994 rule refers. It is 1994, has the rule been adopted? What is the text of the proposed rule?

595 Has low sulphur diesel fuel for trains been in use since 1993 as indicated in DEIS 3-87? To what extent have low sulphur diesel fuel for highway vehicles and stricter emission standards reduced emissions from mobile sources in Imperial County? To what extent have the gains from emission reductions been minimized by increased total emissions from agricultural practices; increasing vehicle traffic; older out-of-tune vehicles, farm machinery, and vehicles from Mexico, all of which are not subject to the stricter emission controls and/or smog checks in urban counties; greater numbers of vehicles using higher sulphur Mexican fuels; and industrial activities across the international border in Mexico?

596 Has ICAPCD developed and adopted the referenced AQAP for achieving PM_{10} attainment (Appendix F:1-5)? If so what are the details?

597 There are several existing Wilderness Study Areas in the vicinity of the proposed project site, the closest being the North Algodones Wilderness Area. These will likely be designated as Wilderness Areas if/when the California Desert Protection Act is approved by Congress this year. Where air quality concentrations are lower than the NAAQS, a program for the Prevention of Significant Deterioration (PSD) is intended to maintain the air quality and "provide special protection for federal, mandatory Class I areas, which include ... wilderness areas." (Appendix F:1-5.) Why does Appendix F state that there are "no Class I areas in the vicinity of the project"? What are the nearest Class I areas and their distance from the proposed project site?

Appendix F states that landfills require PSD review only if they emit more than 250 tons/year of an attainment criteria pollutant. A review of several Appendix F tables suggest that the proposed project would emit more than 250 tons/year of NO_x. Has the US EPA conducted a PSD review of the proposed project?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 592

Project-related changes in air emissions in the Los Angeles basin are an important consideration because ozone precursors emitted in the Los Angeles basin from truck trips and landfills have time to become ozone as they are transported into Imperial County. Project-related changes in air quality in Imperial County are described in Section 4.1.8 of this EIS/EIR.

Response to Comment No. 593

The Desert Research Institute (DRI) Imperial County PM_{10} final report is not available yet. In the interim, some findings can be found in a paper presented by DRI at the June 1994 annual meeting of the Air and Waste Management Association (Watson, et al., 1994). The findings are focused on the border area near Calexico and Mexicali, and do not affect the analysis of PM_{10} impacts at the proposed site or along the rail haul route.

Response to Comment No. 594

As stated in Appendix F, air quality standards are meant to protect the environment. The last sentence in Appendix F, Section 1.2.2.1, paragraph 4, describes the expected content of the rule, but as of this date, ICAPCD has not published a draft of such a rule. As of March 17, 1995, such a rule is not expected to be proposed until after 1995.

Response to Comment No. 595

The federal requirement for highway vehicle diesel fuel to contain no more than 0.05 percent sulfur went into effect on October 5, 1993. Because California oil refineries produced only such fuel, thereafter the sulfur content of diesel fuel used by locomotives has also been less than 0.05 percent since October 5, 1993.

Information on the emissions changes caused by the use of low sulfur diesel fuel in Imperial County, different agricultural practices, vehicles from Mexico, and out-of-tune vehicles is not available nor pertinent to the analysis of environmental impacts by the Proposed Action. It is a part of the baseline air quality data against which project-related impacts are judged.

Response to Comment No. 596

In June 1993, ICAPCD released a document titled *State Implementation Plan for PM_{10} in the Imperial Valley.* This document consists of three volumes, including an executive summary. This EIS/EIR required a three-stage fugitive dust control program that is consistent with the measures discussed in this State Implementation Plan. This plan is available for public review during normal business hours at the Imperial County Air Pollution Control District, 150 South Ninth Street, El Centro, California.

Response to Comment No. 597

The nearest federal Class I area protected under Prevention of Significant Deterioration (PSD) regulations is located about 60 miles away within Joshua Tree National Park. The PSD regulations apply only to stationary source emissions, which would not exceed the 250-ton per year (1,370 pounds per day) limit. Hence, neither the Applicant nor EPA have conducted a PSD review.

598 What is the current status of the US EPA's New Source Performance Standards for MSWLFs which appeared in the 5/91 Federal Register V. 56:24468-24528?

599 DEIS (p.3-92) misrepresents the direction of the prevailing winds measured at the "project general area" of the Mesquite Mine site. Contrary to the DEIS assertion that winter "prevailing winds are from the west and northwest" (DEIS 3-92), Appendix F(p. 2-2 and Table 2.1) leave no doubt that "during winter the wind direction is most frequently from the north and northeast at the site". Appendix F describes a "strong north-northeast flow at the site in December and January." Why does DEIS text contradict the information in Appendix F and on DEIS 3-95? The general DEIS (3-92; 3-95) statements merely confuse the issue that there are profound differences in wind directions at the four sites (Imperial, Mesquite Mine, Blythe, and Yuma) for which information is included in Appendix F, Table 2.1). To correct the DEIS misrepresentation of wind direction, we specifically request that Appendix F Table 2.1 "Dominant wind directions in and around Imperial County during 1991" be included in the DEIS Sec. 3.1.8.

600 Of additional concern is the considerable variability in both wind direction and wind speed observed at the Mesquite Mine as depicted by Appendix F Figures 2.3 through 2.9. These differences in both wind direction and speed are minimized in the single annual wind rose (Appendix F Fig. 2.2 and DEIS Fig. 3-26) and referencing only the daily and nightly averages (DEIS 3-92). Why doesn't DEIS reflect the information in Appendix F?

601 Why is it that Appendix F contains the most revealing information about rainfall at the project site? Why doesn't either Appendix B or DEIS discussion of water resources mention that the 1992 rainfall was thirteen (13) inches at the Mesquite Mine site? (Appendix F:2-5)?

602 Why does DEIS discussion of air quality characteristics (p.3-92) fail to mention that PM_{10} monitoring is done every 6th day at four stations in addition to being monitored at El Centro and Brawley? Why does DEIS Table 3-15 show PM_{10} exceedences at El Centro and Brawley but fail to include Table 2.2 from Appendix F which showed the PM_{10} exceedences at the 4 monitoring stations at the Mesquite Mine site? Appendix F Tables 2.3 and 2.4 should also be included in the DEIS rather than merely referenced because most reviewers will not have all appendices, or time to go ferreting.

603 Appendix F Sec. 2.3.3.3.2 discussion of Imperial County climate is misleading with reference to climate/rainfall conditions at the proposed LF site (F:2-14, 2-15), and is inconsistent with rainfall information in Appendix F:2-5 citing the same source and inconsistent with rainfall data included in Appendix D-1:Table 1 and with rainfall figure used in Appendix F Table 6.2. Why?

Why doesn't the climatic information used in calculations for Appendix F (with its March 1994 submittal date) include rainfall data at the Mesquite Mine through all of 1993? (Also see discus-

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 598

On June 21, 1993, EPA published in the Federal Register (Volume 58, No. 117, pages 33790-33792, June 21, 1993) a notice about changes in the modeling methodology in the New Source Performance Standard (NSPS) for MSW landfills. The Proposed Action is already designed to satisfy the requirements of this NSPS, regardless of when it is finally promulgated.

Response to Comment No. 599

The description of prevailing winter winds on page 3-92 of the Draft EIS/EIR is for the region, not for the proposed landfill area or any of the other three monitoring sites reported in Appendix F, Table 1. During the winter the prevailing wind direction at the Mesquite Mine is from the north and northeast as described on page 3-95 of the Draft EIS/EIR. The text on page 3-95 of the Draft EIS/EIR and Figure 3-26 adequately summarize the information contained in Appendix F.

Response to Comment No. 600

The details of the variability are not necessary to the understanding of the air quality impacts associated with the proposed action. Please see responses to Comment Nos. 401 and 599.

Response to Comment No. 601

Studies of hydrogeology, meteorology, drainage, and infiltration used rainfall data differently because some applications focused on daily events while other applications used annual totals. Although rainfall data appears differently, the applications were still conservative in looking at environmental impacts and conclusions of significance would not change. The heavy rainfall season of 1992-1993 was used in most runs of the HELP model (not included in Appendix G or Appendix B to the Draft EIS/EIR) to confirm that even intense rains would not infiltrate through 2 feet of MSW residue below various thicknesses of cover and hence, that leachate would not be generated. Please see response to Comment No. 110.

Response to Comment No. 602

The Mesquite Mine PM_{10} monitors are not used by the Imperial County APCD, CARB, or U.S. EPA to determine air quality in the Imperial County Air Basin. Therefore, when discussing regional air quality as it relates to attainment of the CAAQS and NAAQS, the data from the Mesquite Mine monitoring stations is not relevant. Please see response to Comment No. 401 regarding why more tables from Appendix F were not included in the Draft EIS/EIR volume.

Response to Comment No. 603

As discussed in the response to Comment No. 601, both annual and daily rainfall data were used in different sections of the Draft EIS/EIR. The comparison statements about rainfall were correct if it is kept in mind that long-term annual precipitation typically varies from 10 to 22 inches in the SOCAB and from 2.5 to 4 inches in Imperial County. A significant time-lag occurs between the time of analysis and final publication of a Draft EIS/EIR, accounting for the absence of data for all of 1993. Careful distinction is needed between references to rainfall measured at the Mesquite Mine and that measured at the cities of Brawley and El Centro. The different values for annual rainfall measured at the mine and these cities would not change the LFG generation by more than approximately 4 percent, and the higher value of the mine was used to conservatively calculate the higher LFG generation rate.

sion elsewhere in these comments.) Use of more accurate rainfall data for Imperial County cities and for the Mesquite Mine site indicate that while SOCAB rainfall may be "approximately six times that in Imperial County" (Appendix F:2-18), SOCAB rainfall is only 3.6 times that of the measured rainfall at the Mesquite Mine, part of which is within the proposed LF site. It is the Mesquite Mine area project site rainfall that is important for the DEIS, not rainfall some 50 miles away. DEIS Table 3-16 average annual rainfall data for Imperial County and data used in Appendix B:G for the HELP model is inconsistent with the assumptions for Appendix F Table 6.2 and information in Appendix D:14. It appears that DEIS and Appendices often underestimate rainfall in Imperial County and at the proposed LF site to minimize the potential for leachate and landfill gas formation problems at the proposed site.

604 Why does Appendix F:2-15 text indicate that one of the four data sites in Table 2.1 is for El Centro, when no data for El Centro is included in Table 2.1? Why doesn't the Appendix F text at 2-15 discuss the apparent sharp differences in wind direction at the Mesquite Mine site with the oft prevalence of winter winds from the north and northwest as indicated in Table 2.1?

APPENDIX F - AIR QUALITY ANALYSIS
Sec. 4.1.8 ENVIRONMENTAL CONSEQUENCES - AIR QUALITY

605 DEIS discussion of environmental consequences of the proposed project on air quality is inadequate and misleading for the reasons discussed herein. DEIS discussion is extremely superficial by comparison to information in Appendix F. Why bury important information in the appendix?

606 Appendix F considers both the Eagle Mountain Project in Riverside County and Chocolate Mountain Project near Niland in Imperial County as alternatives or viable projects which must be addressed for potential cumulative impacts. (Appendix F:6-2 and Sec. 6.4.3.) Why shouldn't such relationships also be a component of an adequate discussion in DEIS text?

Environmental Analysis Assumptions:

607 "During the same period of time, when AB 939 will be reducing the generation of MSW residue, increasing population will increase MSW generation." (Appendix F:6-3.) What are the projected increases in population growth within SOCAB, Coachella Valley and Imperial County within the next 10, 16, 20, 50 and 100 years of the proposed project operating life? What is the projected increase and total MSW generation projected for SOCAB, Coachella Valley and Imperial County for the same target years of the operating life of the proposed project? What are the projected MSW residue levels (in need of potential landfilling) with the strict application of AB 939 as it exists today?

Assumptions for Stationary Sources:

608 Appendix F Table 6.2 "Assumptions for Estimating LFG Generation Rate" is very important and should be included in the DEIS to provide answers to questions about percentage of component materials entering the proposed LF and the anticipated moisture

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Response to Comment No. 604

The text on page 2-15 of Appendix F of the Draft EIS/EIR lists five cities from which meteorological data were obtained and analyzed. The data came from different sources, of which the four listed in Table 2-1 were in similar format that facilitated tabulation. Further, on the geographic scale of Imperial County the cities of Imperial and El Centro are close enough to both have their mean monthly wind directions represented by the data from one of them. The text does discuss in the second bullet on page 2-15 of Appendix F (Section 2.3.3.3.2, Paragraph 5), the distinct winter flow from the north-northeast at the site, which is the relevant wind for the purpose of modeling atmospheric dispersion of facility emission sources.

Response to Comment No. 605

Please see responses to Comment Nos. 172 and 401

Response to Comment No. 606

The Cumulative impacts of the concurrent operation of the proposed Mesquite, Eagle Mountain, and Chocolate Mountain landfills are included as Section 4.7 of the Draft and Final EIS/EIR. Please see response to Comment No. 164.

Response to Comment No. 607

Projected MSW generation has been estimated by the Counties and is presented in Section 1.1.3 of this EIS/EIR. The remaining information requested by this comment is not relevant to the analysis of environmental effects presented in this EIS/EIR. The Proposed Action would provide for the disposal of a specific quantity of MSW residue per day, regardless of the total generation rate. Section 1.1.3.2 of the Draft EIS/EIR presents actual recorded MSW disposal rates and a context for current capacity and remaining capacity in terms of years, assuming compliance with AB 939.

Response to Comment No. 608

Please see response to Comment No. 401.

content of each component. It is recommended that Appendix F Table 6.2 be included both in the section on the project description and
609 again in the section on environmental impacts on air quality. Why was this table omitted from the DEIS? Why are the numbers in Table 1 (Appendix F:A-20) different from those in Appendix F Table 6.2? Is it or is it not appropriate to base calculations on AB 939 reductions after year 2000? Both tables cite SWANA 1991. A revised EIS/EIR must be prepared to correct these deficiencies.

610 The following calculations based on Appendix F Table 6.2 show that the moisture content of MSW residue after year 2000 will be 27.4% not 23%. Thus, with additional AB 939 MSW materials recovery, the moisture content of MSW residue will increase.

Appendix F Table 6.2 calculations

	MSW residue mass (wet)				Moisture Content		
	1994-1999		2000 - on		1994-1999		2000 on
Component	%	lbs/t	%	lbs/t	%	lbs/t	lbs/t
Food waste	13	260	20	400	70	182	280
Paper waste	31	620	20	400	6	37.2	24
Vegetative	16	320	16	320	60	192	192
Remainder	40	800	44	880	6	48	52.8
Totals						459.2	548.8

Moisture as % of MSW residue content is 23% prior to year 2000 and 27.4% after year 2000 modified for AB 939 as in Table 6.2.

611 If landfilling of Imperial County agricultural wastes is potentially anticipated, what is the anticipated percent of agricultural plant waste as a percent of MSW residue materials to be landfilled? What is the anticipated moisture content of the agricultural plant material which might be landfilled and how would landfilling this material affect LFG generation?

612 If the overall efficiency of LFG collection is 80%, what guarantees are there that the 20% LFG together with its associated VOCs would escape to the atmosphere (DEIS 4-66) rather than migrate through leaks in the liner and into unsaturated vadose zone underlying the LF? What factors account for the assumed efficiency of LFG collection at 80% at Mesquite LF rather than 95% at Puente Hills (DEIS 4-66)? Why wouldn't LFG (not captured by the LFG collection system and its vacuum removal) migrate past the LFG collection system to the LF liner? Would an LFG enhancement program (DEIS 4-67) also be accompanied by an 80% collection efficiency?

613 DEIS Table 4-7 indicates the "Flare thermal destruction efficiency" for four Southern California landfills. The Puente Hills landfill flare destruction efficiency did not achieve the 99% destruction efficiency for the toxics benzene and carbon tetrachloride. Why was benzene destroyed at only 76.88% at Puente Hills when destruction efficiencies either exceeded 99% or approached 99% at the three other sites? If Puente Hills was not able to achieve the destruction efficiencies of other So Cal. landfills, why are flares at the proposed project site (where Western Waste is the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 609

The percentages of the four MSW residue components are the same in both tables (Table 6-2 of Appendix F and Table 1 of Appendix A of the Draft EIS/EIR [Theory and Formulation of the ESI Gas I Landfill Gas Generation Mode] to Appendix F) for 25 percent recycled waste during the time period of 1995 to 1999 as required by AB 939. Table 6-2 also gives the percentages of the components with 50 percent recycling after 1999, while Table 1 (Appendix A) also gives the percentages before recycling to analyze the older MSW taken to the different landfills from 1961 through 1982 as discussed in Appendix A to Appendix F. Calculations in the Draft EIS/EIR are based on the appropriate MSW residue composition expected for the Proposed Action under the AB 939 requirements of 25 percent recycling for 1995 through 1999, and 50 percent thereafter. Please see response to Comment No. 172.

Response to Comment No. 610

The comment is correct. The 23 percent (by weight) shown in Appendix F, Table 6.2 of the Draft EIS/EIR applies only to the years 1994 through 1999. After 1999, moisture content would be 27 percent.

Response to Comment No. 611

The diversion of agricultural plant material from burning is one potential source of emission reduction credits (ERCs) to offset emissions of each nonattainment pollutant from the flare station that exceeds 137 pounds per day. The plant material might be landfilled as a waste, used as cover amendment, or otherwise managed to prevent burning. Please see response to Comment No. 404.

Response to Comment No. 612

The LFG collection rate is measured, while the LFG collection efficiency is estimated based on LFG generation models, because LFG generation cannot be measured directly. Although it is expected that the LFG collection efficiency will equal or exceed the 95 percent estimate for Puente Hills, a conservative 80 percent was chosen to avoid overstating the technical progress in LFG collection technology.

LFG collection efficiency is expected to be highest in areas near the liner. This is because the first layer of collectors would be installed only 20

Response to Comment No. 612 (Cont'd)

feet above the liner, thus creating the potential for a very effective vacuum to be established. Vacuum probes would be installed immediately above the operations layer above the liner to assure that a vacuum is maintained in this area (please see response to Comment No. 110). The negative pressure above the liner established by the vacuum would substantially reduce the chance of LFG escape through the liner.

LFG collection efficiency in the MSW residue at higher levels in the landfill may not be uniformly as effective as just above the liner due to wider spacing of LFG collector pipes. As noted in the Draft EIS/EIR overall LFG collection efficiency is expected to reach or exceed the 95 percent rate achieved at Puente Hills. As described in detail in response to Comment No. 110, LFG generation rates are expected to decline in areas where the landfill has reached its maximum height and final cover has been placed. In these areas, LFG collection efficiency would be even higher (i.e., over 95 percent) due to lower LFG generation rates.

The pilot program of LFG enhancement would be subject to the same collection and migration just described, as would a full-scale program if one were requested and approved at some point in the future.

Response to Comment No. 613

Flares and LFG composition differ between landfills. Table 4-7 of the Draft EIS/EIR confirms that flares are operating at existing landfills with overall and individual constituent destruction efficiencies in excess of 99 percent (e.g., BKK and Scholl Canyon). El Sobrante Landfill flare performance data were not included in the Draft EIS/EIR because its LFG system was only part way through its startup adjustment period, while the LFG collection systems listed in Table 4-7 had been operating under normal conditions for years. The only source test performed on the flare at El Sobrante Landfill (August 1993) indicated the destruction efficiencies for the six constituents listed in Table 4-7 were 99.6 percent for benzene, nondetectable inlet and outlet concentrations for carbon tetrachloride, 99.98 percent for tetrachloroethene (perchloroethene, PCE), 99.99 percent for toluene, 99.95 percent for trichloroethene (trichloroethylene, TCE), and 99.9 percent for vinyl chloride. These destruction efficiencies easily exceed the assumed 99 percent, and exceed most of the efficiencies listed in Table 4-7 for the other landfills.

experienced landfill partner) assumed to destroy 99% of the toxics in analysis for LFG generated at the proposed site? Why doesn't DEIS Table 4-7 include data for WWI''s El Sobrante LF in Riverside County?

614 Appendix F:6-5 refers to energy recovery options as gas turbine or boiler or combined cycle plant. DEIS:4-67 refers to "a gas turbine boiler or combined cycle plant". Which is correct?

Assumptions for Mobile Sources:

615 Appendix F:6-6 indicates that emission factors for heavy duty diesel trucks were computed at a temperature of 75°F because it was close to the 73°F average temperature of Imperial County. Would emission factors change if calculations included consideration of the high ambient summer temperatures which can exceed 110°F in unirrigated desert portions of Imperial County? (6/25/94 temperature in El Centro was 118°F and away from irrigated areas temperatures exceeded 120°F.) Would calculations change if low nighttime temperatures of winter months are included? Why would a temperature of 60°F (Appendix F:6-9) be used for calculating the potential air quality effects of idling vehicles at railroad grade crossings? Based on text in Appendix F:6-8, it appears that impacts along truck haul routes from transfer stations/MRFs to intermodals are not separately analyzed, contrary to the assertion of DEIS 4-70.

Assumptions re Fugitive Sources:

616 DEIS should include the assumption that the overall efficiency of the LFG collection system is only 80% of the generated LFG and that it is "assumed that the full 20% of LFG escapes into the atmosphere" (Appendix F:6-6). Upon what is this assumption based? Is it a valid assumption? Earlier in the same paragraph it stated "the remaining 20 percent [of LFG] migrates toward the surface of the landfill." How would the LF cover prevent LFG from escaping from the surface or migrating laterally or downward into the soil (DEIS 4-11), but allow the "full 20 percent" to escape to the atmosphere (Appendix F:6-6)? This doesn't seem to make sense. Further, if LFG generation is the result of anaerobic decomposition of organic material in compacted MSW residue (Appendix F:6-30; DEIS 2-44), what is the source of oxygen for the "aerobic decomposition" of LFG (Appendix F:6-6) under the covered landfill?

Assumptions re Transportation:

617 Appendix F:6-7 indicated that ICAPCD presently excludes the trains which would carry MSW residue from definition as cargo carriers and from the need for offsets. How likely is it that ICAPCD would consider future regulations to reduce train emissions such as for SCAQMD? The air quality analysis makes certain assumptions about the nature of train locomotives fuel sources (DEIS 4-69). If emission requirements are lower for trains importing waste from outside California, and rail-haul costs in California increase as emission regulations are tightened and enforced, might this also serve as further inducement for importation of waste from outside California? Should ICAPCD consider regulating train locomotive emissions to insure pollution levels do not increase as a result of importation of waste from states with

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 614

The sentence on page 4-67 of the Draft EIS/EIR has been corrected by inserting a comma between the words "turbine" and "boiler" in this Final EIS/EIR.

Response to Comment No. 615

The temperature of 75° F selected for obtaining emission factors from CARB for heavy duty diesel trucks and other highway vehicles was the closest 5 degree temperature to the Imperial County average of 73° F. No further temperature distinction needs to be drawn, despite the existence of higher and lower ambient temperatures in Imperial County because the emission rates are dominated by the effect of cylinder combustion temperatures, which are measured in hundreds of degrees, not tens. The choice of these and other emission factors for trucks hauling on roads, vehicles idling at railroad crossings, and other sources was based on emission factors developed by the U.S. EPA for use in conducting air quality impact analyses. Trucks hauling MSW residue from transfer stations/MRFs to the intermodal, and other sources were all analyzed and the resulting emissions reported. In contrast, sources at the site were analyzed for emissions and maximum ground level ambient air quality concentrations.

Response to Comment No. 616

The Draft EIS/EIR does conservatively assume 80 percent collection of generated LFG and that the remaining 20 percent migrates toward the surface. (Please see response to Comment No. 612.) These variables cannot be directly measured, so the assumptions are developed from the amount of collected LFG measured at various landfills and the amount of LFG predicted to be generated at these landfills by models.

At the completion of a segment, final cover consisting of compacted soil and an FML on top and at least 7 feet of compacted soil on the sideslopes. Together with the bottom liner, these components effectively encapsulate the landfill to prevent escape of LFG into the atmosphere and migration into the surrounding soil.

Decomposition occurs anaerobically throughout most of the prism for the entire period of a landfill's existence except for a thin layer near the surface a short period after the arrival of each container of MSW residue.

Response to Comment No. 616 (Cont'd)

During this initial period of time, which can vary in length from days to weeks, the initial oxygen in the air spaces of the waste is consumed. Anaerobic conditions develop upon the loss of oxygen. In a thin layer of MSW residue under the top cover layer, oxygen (in air) can still be introduced by daily changes in atmospheric pressure. These aerobic reactions have little influence on the overall generation of LFG, but may be important in decomposing the LFG that migrates toward the surface. This atmospheric pressure "pumping" of air into and out of the upper-most layer of MSW residue would be eliminated by the placement of an FML on top as part of an integrated cover system.

Response to Comment No. 617

This EIS/EIR finds that train related emissions would not be significant. This comment requests the Lead Agencies to engage in speculation, and does not address the adequacy or accuracy of this EIS/EIR; therefore, no additional response is required.

lower emission standards?

618 Assumptions re Odors and Odor Impacts:
Why doesn't DEIS (4-76) include the discussion of venting of air and odors from the MSW transport containers and the increase in temperatures of containerized MSW residue from 64°F to 120°F because of ambient and solar heating of the container and exothermic decomposition of MSW residue (Appendix F:6-10; 6-40, 6-41 and DEIS:4-106)? This information should be in the DEIS along with an explanation as to what extent the temperatures within the containers changes during the hottest of the summer months when ambient temperatures approach 120°F. If, as Appendix F indicates, the LFG generated during transport contains 10 ppmv hydrogen sulfide, will this create potential problems for employees working at the site as MSW residue is dumped at the proposed site prior to daily cover being applied? Wouldn't additional H_2S be generated once materials are dumped at the site if covering with soil occurs "not less than once each day" (Appendix F:6-10)? Presumably "odors at the landfill face are not expected to be noticeable to the public" (DEIS 4-107), but will they be noticeable to those working at the LF face?

Finally, what probability exists that containers could exceed the 120° F ambient temperature because of a stop and consequent insolation on a summer day? What explosive potential from the venting of decomposition gases exists under such conditions?

619 Measures of significance of impacts:
Why is no consideration given to the impacts on the health risks of employees at the proposed project who could experience carcinogenic, chronic and/or acute health impacts as a result of working at the proposed LF site for 8 hours/day, 5 days/week for 40 years?

Sec. 4.1.8.3 EMISSION SOURCES:

620 Appendix F:B calculated emissions from Landfilling MSW residue "as is" and for "conditioning" MSW residue to increase MSW residue moisture content to 40%, methane generation and energy recovery. (Appendix F:6-13.) Why then does the DEIS not consider this "wet-cell" fermentation and leaching technique (or enhancement of LFG generation by "conditioning" MSW residue)as an alternative to the proposed project (to keep MSW residue dry)?

621 DEIS Sec. 4.1.8.3 provides an inadequate substitute for the information in Sec. 6.3 in Appendix F. DEIS Sec. 4.1.8.3 should include more information from text of Appendix F, since most reviewers will not have ready access to Appendix F. Where does the DEIS indicate the locations and spacing of fenceline LFG receptors and volume source receptors for PM_{10}s?

622 Calculations in Appendix F:B for calculating potential emissions for the proposed LF project are in error if they were computed based on the "as received" MSW residue content of 23% (Appendix F:6-16) which would occur prior to year 2000 rather than the 27.4% moisture content anticipated after year 2000 based on the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 618

Please see response to Comment No. 401. The paragraph on odor on page 4-76 was only intended to list the sources of odors while the discussion on pages 4-105 through 4-107 is the complete analysis of odor impacts taken from the information presented in Appendix F. If the temperature inside the container increased to 150° F, which is possible, the air volume pushed out the vent would increase approximately 5 percent and the H_2S concentration would decrease a similar amount. The 10 ppmv (parts per million by volume) of H_2S in LFG must not be confused with the H_2S concentration that exits through the vent, which is only 37 ppbv (parts per billion by volume) normally, or at most 90 ppbv if the train were delayed 24 hours in desert heat. The latter concentration is over 100 times less than the 10 minute time weighted average concentration allowable exposure for employees according to the National Institute for Occupational Safety and Health. LFG, and hence, H_2S, would continue to be generated after being tipped out of the container, but H_2S would not reach higher concentrations.

Although odors would not be noticeable to the public at or beyond the property boundary, an odor would exist at the exposed active landfill face. It is not expected that this odor level would be substantially greater than the odor level at other landfills in Southern California; Therefore odor impacts to workers would not be significant. The methane concentration in the LFG exiting the vent of the containers would be less than 0.15 percent, assuming anaerobic decomposition (which is a conservative assumption for the MSW at that early stage. Anaerobic decomposition usually develops only after several days have passed).

The explosive range for methane is 5 to 15 percent. The methane concentration would probably be much less than the anaerobic 0.15 percent because initial decomposition of MSW residue proceeds aerobically until the oxygen in the pore space air is depleted. Aerobic decomposition creates water and carbon dioxide, but not methane.

Response to Comment No. 619

Health risks for landfill employees are governed by regulations established by the California Occupational Safety and Health Administration and the National Occupational Health and Safety Administration. These regulations assure safe working conditions for employees and address potential health impacts from dangers at the work

Response to Comment No. 619 (Cont'd)

place. These procedures govern safety and health concerns for employees operating at landfills throughout the state. There is no indication that these procedures have not been effective in this regard. Based on Cal-OSHA and OSHA regulations potential impacts to landfill employees from on-site hazards would not be significant.

Response to Comment No. 620

Please see the text in the first paragraph of the response to Comment No. 434

Response to Comment No. 621

The information presented in Section 4.1.8.3 is a summary of the information presented in Appendix F, Section 6.3. The summary provides the pertinent information from Section 6.3, that is necessary for the general public to understand the emission sources associated with the proposed project. Please see response to Comment No. 401.

The specific location of project-related PM_{10} monitors has not been determined at this time, but will be determined by the APCD during subsequent permitting. The public will have the opportunity to review and comment on the specific design details of these monitors at that time.

Response to Comment No. 622

The analysis in this EIS/EIR is correct, because it did consider the future increase in MSW residue moisture content after the year 2000. Table 6-2 of Appendix F to the Draft EIS/EIR should have indicated that the 23 percent (weight basis) overall moisture content in the right hand column only applied to the 1994 through 1997 composition (Column 2), while the overall moisture content would be approximately 27 percent when the moisture content of the four components in Column 4 are applied to the "2000-on" composition in Column 3. Table B.22 in Appendix B (Emissions Tables) to Appendix F to the Draft EIS/EIR shows at the bottom of Column 10 that the correct overall moisture content was calculated for each of the two time periods. The latter part of the comment deals with flare destruction efficiency and was answered in response to Comment No. 613.

above calculations from information in Appendix F:Table 6.2. Were any calculations done using the higher figure for MSW residue moisture content after full implementation of AB 939 as indicated in Appendix F Table 6.2 and above? If not, why not? Years after 2000 including operational years 16 and 85/100 should be calculated based on the AB 939 actions resulting in increased moisture content. What would be the corrected emissions figures for Appendix F Table 6.5 and DEIS Table 4.9? Why is the LFG flare destruction efficiency assumed to be 99% (Appendix F:6-16) when the Puente Hills LF was not able to achieve this figure? If only 80% of LFG generated is expected to be collected at proposed LF (a lower percentage than at Puente Hills LF), why should the public expect a flame destruction efficiency higher than at Puente Hills? What flame destruction was achieved at WWI's El Sobrante LF?

623 Why doesn't DEIS Sec. 4.1.8.6 include mitigation measures to the detail discussed in Appendix F? Since there is no DEIS mitigations measures reference to Appendix F, does this mean that the proposed project has lower standards for mitigation re air quality than those identified in Appendix F Sec. 6.3.1? Why does DEIS Sec. 4.1.8.3 provide such skimpy discussion of emission sources compared to that included in Appendix F? More detail from Appendix F should be included in the DEIS itself for convenience of the public and decision makers reviewing the DEIS.

DEIS should include more detail from Appendix F discussion of (a) landfill site emissions; (b) paved road emissions; (c) unpaved road emissions; (d) working face and cover-borrow area emissions; (e) construction emissions; (f) emission off-sets; and (g) related MSW residue transport emissions so the public and decision-makers can better appreciate the full extent of air quality impacts of the proposed project. DEIS Table 4-8 is an inadequate substitute for full disclosure of details of all project related air quality impacts.

624 Why does Appendix F indicate the active working face of operations at the proposed LF to be 1.14 acres (Appendix F:6-21) when the DEIS indicates at several places that working face operations would be limited to less than 0.5 acre (DEIS 4-150)? "Maximum area of MSW residue exposed at any one time shall be less than 3.0 Ac." (DEIS 4-14.) Which is correct? How many working faces are intended at any one time?

625 Why does the DEIS provide detail of varying energy recovery options based on "conditioned MSW residue" with an enhanced moisture content of 40% (Appendix F:6-13) but fail to discuss the increased leachate generation potential associated with increasing moisture content from estimated 23% (Appendix F Table 6.2) before year 2000, and 27.4% after year 2000 to 40% associated with enhanced LFG generation? Why doesn't DEIS (at 4-78) indicate that the water added to MSW residue would bring the moisture content to 40% for LFG augmentation? How much water/day and /year would be used to increase the moisture content of 20,000 tpd MSW residue to 40% moisture?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 623

The mitigation measures presented in this EIS/EIR are virtually the same as those identified in Appendix F except that they have been rewritten in a format that is more typical of EIS/EIR mitigation language. Appendix F calls for the washing of containers after each trip to the landfill. It was determined that washing the containers every sixth time would be consistent with good health and safety management practices. This determination was made based on the composition of the waste stream, and the dumping process, by which the residue is removed from the containers at the working face. The result is that the containers are expected to be generally clean and without odor. The frequency of washing may be modified if it is determined that the containers need more or less frequent cleaning. This resulted in the modification of the mitigation measure from Appendix F.

The Final EIS/EIR, bullet three under Stationary Sources, has been modified as follows to incorporate the one missing mitigation measure included in Appendix F: Construct fuel storage tanks with submerged fill pipes to control formation of vapors during filling "and paint the storage tanks a light color acceptable to the BLM to reduce the temperature rise caused by absorption of solar radiation, and the evaporation of fuel induced by the temperature rise."

Table 4-8 provides a summary of the emission sources associated with the proposed landfill. This table is explained in the text in Section 4.1.8 of this EIR/EIR. Interested readers who would like to better understand the components of each emission source can review Appendix F. Please see response to Comment No. 401.

Response to Comment No. 624

The three areas are consistent. Using Figure 2-12 (Draft EIS/EIR, page 2-21) as a helpful illustration, the area of exposed MSW residue of one of the two working faces is less than 0.5 acre (= 21,780 square feet) as noted on page 4-150. Each face can handle the disposal of 2,000 tons per day (tpd) during one work shift, hence the two faces shown in Figure 2-12 can handle 4,000 tpd during one shift. Four faces would be needed to handle 8,000 tpd in one shift when the total daily disposal rate reaches 20,000 tpd. The four faces being worked simultaneously would have a combined area of less than 3 acres as noted on Draft EIS/EIR page 4-14.

Response to Comment No. 624 (Cont'd)

The Draft EIS/EIR considered a condition where the landfill was operating above average capacity, perhaps as the result of a train delay, and considered 5 working faces during one shift, each of less than 0.5 acres. The 1.14 acres mentioned on page 6-21 of Appendix F and listed in Table 6.7 of the same appendix to the Draft EIS/EIR includes the working face and the adjacent covered areas above the face and in front of the face where end-dump trucks, dozers, and compactors would be moving cover material and MSW residue.

Response to Comment No. 625

The Draft EIS/EIR discusses the energy recovery options on the basis of "conditioned" MSW residue because the maximum amount of LFG is then generated and yields the maximum emissions and potential environmental impacts. The conditioning of MSW residue could increase water use from approximately 1,000 to 1,500 acre-feet-per-year (620 to 930 gallons per minute [gpm]) to approximately 4,000 acre-feet-per-year (2,500 gpm). Although the field capacity of MSW residue is approximately 40 percent by volume, the pilot program may show that the optimum effectiveness of enhancing LFG generation based on the cost of adding water and nutrients is achieved at a lower moisture content. Because the operating characteristics of a potential future LFG enhancement program cannot be adequately determined, it would be speculative to try to estimate leachate production at this time. Prior to permitting a full-scale LFG enhancement project at the proposed site, supplemental environmental review would be required.

LFG generated through the pilot program would have no higher concentration of VOCs because of the conditioning and therefore, the liner and LFG collection system would not be exposed to higher VOC concentrations. The LCRS would potentially be exposed to more leachate, but its materials are designed to handle potentially high volumes in accordance with state and federal law.

How would the increase in VOCs that accompany increased LFG generation interact with various plastics components of the LCRS, LFG collection system, and liner system?

626 Would a liquified methane gas plant (DEIS 4-77) or a compressed methane gas plant (DEIS 4-77) be feasible or economically viable if the proposed LF continued to landfill MSW residue "as received" rather than adding water to bring the moisture content up to 40% for LFG augmentation? Please note the cautious speculation of Appendix F where it states that:

> As LFG generation rates increase with growth of the landfill and/or through implementation of a full-scale LFG generation enhancement program, it may become economical to utilize the methane fraction of recovered LFG for on-site or commercial energy recovery. (Appendix F:6-29, emphasis added.)

What are the implications of such full-scale LFG augmentation for leachate generation and recovery and for potential LFG and VOC migration to vadose zone and ultimately to groundwater if only 80% LFG efficiency is achieved?

It should be further noted that with reference to DEIS Table 4-22, not only water, but also "possibly nutrients, are added to augment anaerobic decomposition and LFG generation." (Appendix F:6-30.) What nutrients, from what sources? Why isn't this information provided in the DEIS?

DEIS Sec. 4.1.8.4 AIR QUALITY IMPACTS OF PROPOSED ACTION

627 Since there were 13 inches of rain during 1992 (Appendix F:2-5), how will use of this higher than average rainfall (1991-1992) for the project site affect the results of the EPA's ISC2 model for Year 16 with a flare station (Appendix F:6-32 and DEIS Table 4-9)?

Criteria Pollutants:

628 To what extent are the 1991-1992 PM_{10} emissions measured at the Mesquite Mine (Appendix F:6-33) reduced by the 13 inches of rainfall during 1992 (Appendix F:2-5), (the maximum rainfall recorded at the Mesquite Mine site)? Other discussion in Appendix F (at 4-1) indicates that an area with more precipitation would probably have lower PM_{10} concentrations. Why was 1992 data with its 13 inches of rainfall chosen for PM_{10} background concentrations (Appendix F:6-32, 6-33) but rainfall data from the same year was not used to calculate leachate generation using HELP model (Appendix B:G)? Was the purpose in each case an attempt to minimize the problematic material (PM_{10} concentrations and leachate generation) being reviewed?

629 Why haven't PM_{10} concentrations that trigger Tier II measures (DEIS 4-81) been developed prior to the release of DEIS? What were the highest wind speeds recorded at the Mesquite Mine during the windy days of Spring 1994, and what was the period of time, on each occasion, when wind speeds exceeded 25 mph? Tier I measures indicate that it might not be possible to curtail placement of daily cover during periods when wind exceeds 25 mph (DEIS 4-81). How would PM_{10} emissions be reduced in such circumstances? How

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 626

At this time it is unknown whether a liquefied methane gas or compressed methane gas plant would be economically feasible with or without conditioning. The potential environmental impacts of these options are analyzed to show that they would not be greater than the impacts of other options, including a flare station or a boiler.

The 80 percent collection efficiency is a conservative estimate. A higher efficiency is likely, which would further reduce the potential LFG/VOC migration towards liner, surrounding soil, and ground water.

Nutrients were mentioned as possible additives, along with water, to the MSW residue. The details would be developed from the pilot program. Because the operating characteristics of a potential future LFG enhancement program cannot be adequately determined at this time, it would be speculative to try to estimate leachate production in this EIS/EIR. Prior to permitting a full-scale LFG enhancement project at the proposed site, supplemental environmental review would be required.

Response to Comment No. 627

Although the air quality analysis on page 6-32 of Appendix F of the Draft EIS/EIR discusses the use of meteorological data from 1991 to 1992 in the ISC2 model, only wind variables were actually used. Precipitation is not used as an input to the model, and hence, none of the computed maximum ground level ambient air quality concentrations produced by the Proposed Action would change.

Response to Comment No. 628

The entire PM_{10} data set available from 1985 through 1993 is used in this Final EIS/EIR to develop the annual geometric and arithmetic means used in the air quality analysis. This air quality work was done in the second half of 1994, and so more recent data were not available. This nine year base provides a wide range of meteorology and air quality to represent background conditions. The high rainfall during the 1992-1993 rain season was used in the HELP modeling of infiltration.

Response to Comment No. 629

Tier II measures to further mitigate fugitive dust beyond the basic set of measures would be triggered by a PM_{10} concentration increase, not by an absolute concentration. PM_{10} monitoring data collected during initial operation of the landfill would be used to determine the appropriate concentration increase to use for the Tier II trigger.

The Draft EIS/EIR (page 4-78) indicates that dust generating activities such as site clearing, stability berm construction, and excavation, would be curtailed when wind speed exceeded 25 mph.

Lightweight plastic trash would be prevented from blowing around by litter control measures, as described in Section 2.1.4 of this EIS/EIR.

Health effects from the application of dust suppressants would not be a problem because nontoxic substances would be used according to manufacturer's instructions.

would lightweight plastic trash be prevented from blowing off-site under such winds? What kind of health impacts would there be for employees resulting from the application of Tier III dust suppressants (DEIS 4-81) during high winds and added exposures to PM_{10}s?

630 **Transport related impacts/MSW residue truck haul from transfer stations/MRFs to intermodal at LATC:** DEIS Table 4-14 presents total emissions for truck haul to LATC, but fails to discuss local impacts of such emissions along discrete routes. What are the local consequences of an increase in criteria pollutants along truck haul routes and rail routes in SOCAB? By combining emissions throughout SOCAB (DEIS Fig.4-5) and Table 4-13) DEIS attempts to reduce the significance of project related transport impacts along routes (from transfer stations/MRFs to LATC or SP's intermodal in City of Industry) where impacts will occur. Why wouldn't local impacts be more significant along these routes, especially at night and early morning due to the SOCAB low inversion layers? What are possible truck haul routes for transfer stations/MRFs to existing intermodal sites -- if no additional transfer stations/MRFs or intermodal sites are not needed or intended for use with the proposed project (DEIS 3-66)?

Transport related impacts/Odor impacts:

631 Will container washdown (DEIS 4-107) occur only "once every sixth usage" (Appendix F:6-10) or more frequently? Why doesn't DEIS discuss the frequency of washdown? How would once every sixth trip be adequate to reduce odors during summer months? Since any alkaline or acid solution becomes more reactive with heat/or stirring, why run the risk of corrosion to container bottoms by washdown only once every sixth use? How would containers be inspected for corrosion and leakage?

Toxics: Risk Assessment problems - Impacts to employee health

632 ERF #373 "Invisible killers: Fine Particles" (Exhibit O) describes the importance of small, inspirable particles (PM_{10}s) that are small enough to get deep into the lungs and which may be coated with toxic materials or toxic organics like polycyclic aromatic hydrocarbons (PAHs). ERF #373 describes the health impacts that result from exposure where "a 100 ug/m^3 increase in PM_{10} is always accompanied by an 8% to 17% increase in the death rate." It is employees at the working face of the proposed LF who would have greater lifetime exposure to PM_{10} than those with lower exposures/more infrequent exposures/shorter duration exposures to pollutants originating at the proposed LF site than the risk assessment categories identified in DEIS 4-107.

Why doesn't the Appendix F health risk assessment (F:6-34, 6-35) or DEIS (4-107 through 4-109) discussion of toxics impacts include a fourth exposure condition, the exposure of LF employees to toxic air contaminants at the site 8 hours/day, 40 hours/week, year after year for an career employment of 40 years? What are the carcinogenic risk, acute hazard risk, and chronic hazard risks for employees at the working landfill face? Although DEIS Table 4-19 note 1 indicated that there is a detailed analysis of health risks in Appendix F, in fact, we were unable to find (in Appendix

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 630

The current and future street routes of trucks transporting MSW residue between transfer stations, MRFs, local landfills, and the LATC are unknown. Because the emissions of the Proposed Action would be no greater than those of the No Action Alternative, no further environmental impact analysis is required. Please see response to Comment No. 21.

Response to Comment No. 631

As described in the Draft EIS/EIR, container washdown would occur as needed (Section 4.1.8.6). The containers would be inspected for corrosion, leakage, and other defects at the time they are washed, and they would also be more generally observed for defects each time they pass through the proposed Mesquite Regional Landfill facility. Please see response to Comment No. 623.

Response to Comment No. 632

A health risk assessment (HRA) for all on-site emissions was performed. The Draft EIS/EIR describes the assumptions and results of the HRA (pages 4-107 through 4-109). Please see response to Comment No. 182.

The HRA does not address risks to on-site workers. Instead, risks to on-site workers are subject to regulations adopted by the Occupational Safety and Health Administration ("OSHA"). OSHA has adopted standards applying, for example to construction-related excavations, such as those that will occur at the project. (29 C.F.R. § 1926.650 et seq.)

The commentor expresses particular concern regarding worker exposures to toxic air contaminants, particularly fine particulate matter and toxic organic compounds such as polycyclic aromatic hydrocarbons. OSHA has adopted regulations governing worker exposures to airborne contaminants, including PM10 and toxic organic compounds. (29 C.F.R. § 1926.55.) These standards will apply to the project.

The commentor expresses skepticism regarding the reliability of HRAs generally. By their nature, HRAs begin with a set of assumptions regarding the length and duration of anticipated exposures. Because HRAs rely on such assumptions, a degree of uncertainty is unavoidable. For this

F text and the listed tables) any health risk information other than what was in the DEIS. Where is the "Full analysis" referenced by DEIS 4-108?

Is the health risks assessment information missing because of the problems of demonstrating a direct link between a hazard and its health impact? Is the information missing because the Applicant prefers not to discuss the synergistic effects of exposure to a number of materials (both toxic and PM_{10}s) which either singly or together could result in either carcinogenic, acute and/or chronic health impacts to LF employees from Imperial County with previous exposures to agricultural chemicals and PM_{10}s? Indeed, "One official with the California Department of Health Services called the [risk assessment] procedure "voodoo science" because of the large number of uncertainties and absence of information." (Blumberg & Gottlieb 1989:103.) In addition: "Much of the risk management procedure involves trade-offs between a perceived risk and a presumed benefit." (Blumberg & Gottlieb 1989:103.) In citing Ruckelshaus, formerly of EPA but now with the waste industry, the authors conclude that:

> risk analysis appears to elevate health and environmental questions in the determination of policy, while in reality serving as a mechanism to remove such issues from public input. The determination of risk, as uncertain as the regulatory process that spawned it, has become another way of justifying a project already favored by both industry proponents and policy-makers. (Blumberg & Gottlieb 1989:104-105.)

There is a growing skepticism related to the value and validity of risk assessment as it has been used by industry.

> The scientific problems with risk assessment are numerous. There is ample evidence that risk assessments are manipulated to yield a favorable result. By changing an assumption here, tweaking an equation there, risk assessors can justify virtually any policy they desire. Science is based on empirical data. Risk assessment, which merely models and predicts events that are never verified, allows much wiggle-room for the politically motivated. ....
>
> In a free society, such a bald assertion of certainty in what is really a speculative and political exercise presents a fundamental problem. By applying a veneer of objectivity, regulators and corporations disguise the politics as well as the value judgements that lie behind decisions about health and the environment. (Thornton 1991a.)
>
> Science, which is supposed to rely on conclusions that have been proven through experimentally and theoretically consistent study, is squarely at odds with quantitative risk assessment. The overwhelming uncertainty of the process leaves it wide open to abuse. "Risk assessments are designed to dazzle, confuse, and ultimately disempower people," says Stormy Williams, a community activist

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 632 (Cont'd)

reason, the HRA performed for the project incorporates conservative assumptions regarding anticipated exposures. In light of the conservative tenor of these assumptions, the Draft EIS/EIR likely overstates the health risk presented by the project.

who lives near National Cement's toxic waste burner in the California Desert. (Thornton 1991b.)

633 DEIS and Appendix F discussions of air quality impacts appear to ignore the potential cumulative impacts on Imperial County air quality already degraded by rapid population growth and industrial growth in Mexicali, immediately adjacent to the international border. Why? Why is there no discussion of the potential for NAFTA induced air quality impacts in Imperial County in terms of assessing air quality impacts of the proposed project at years 16 and 85/100?

Just because there are not many residences or commercial establishments between the project site and residential communities today (DEIS 4-91), is no reason to assume that such would be the case in 100 years! Therefore, impacts related to use of employee and private vehicle emissions is likely to become more serious in the future.

Proposed air quality offsets - Agricultural offsets:

634 Neither DEIS text beginning with p. 4-91, nor tables and figures, nor Appendix F:C analysis of offsets, succeeds in explaining how reducing agricultural burning in Imperial County would adequately offset ROG, SO_x and CO emissions. What is the availability of offsets in addition to those already accounted for by other projects?

Issues related to agricultural burning offsets are not clearly explained and these sections need to be redrafted. Why doesn't either the DEIS or Appendix F indicate for what other projects and just how much agricultural plant material is currently approved for diversion from burning to provide emission offsets for other projects? How successful have these other agricultural plant diversion projects been? One long-term Planning Commissioner expressed concern that such offsets are being used for more than one project at a time (Manger 6/8/94).

635 What happens to the agricultural plant material once it gets to the LF site? Why doesn't either DEIS or Appendix F discussion of agricultural burning offsets include the nature of the final disposition of the agricultural plant waste? Will it be landfilled? If so, how will it change the percent of vegetative material in the MSW residue landfilled? How would addition of agricultural plant material to MSW residue alter the moisture content of the vegetative component and anaerobic degradation of the MSW residue? If the agricultural plant material is composted rather than landfilled, how will this affect the gas generation at the proposed project site? If landfilled, what effect would it have on discussion of LFG generation? Where are these calculations and discussions?

Might the term "agricultural plant material" be expanded or modified to include that plant material which has passed through digestive systems of feedlot or farm animals?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 633

The ICAPCD has prepared a State Implementation Plan (SIP) to meet federal AAQS and has adopted a series of rules to implement the SIP. In preparing the SIP and the implementing rules, the ICAPCD has considered future sources of air pollution. If the ICAPCD is successful in meeting AAQS, the cumulatively significant air impacts described in this EIS/EIR would no longer be cumulatively significant. This EIS/EIR took the conservative approach that a net increase of pollutants from the proposed landfill site would exceed standards would be cumulatively significant, regardless of whether Imperial County will meet AAQS in the future or not.

Response to Comment No. 634

Please see response to Comment No. 570.

Response to Comment No. 635

Please see response to Comment No. 570. Manure is currently burned or composted in Imperial County (LEA, 1995). Manure could be classified as MSW, but it is not typically landfilled and the Applicant has not proposed to accept manure at the proposed landfill.

636 Are the transfer stations/MRFs at San Pedro, Gardena, Compton, Carson, Southgate, Irwindale, and Vernon (Appendix F:6-28) all owned or operated by WWI? If so, how much MSW passes through each facility/day? What are CIWMB most recent data?

Proposed Air Quality Offsets - Mesquite Mine emissions offsets

637 Issues of PM_{10} and NO_x offsets from the closure of the Mesquite Mine are understandable, but we question their use as offsets for the proposed project. DEIS Fig 4-17 points out the significant increase in emissions at the project site with both the proposed LF project and the continuation of operations at the Mesquite Mine until mining operations hypothetically cease in year 2007 or thereafter. DEIS Figs. 4-10 through 4-15 indicate that even after the closing of the Mesquite Mine ROG, CO and SO_x emissions generated by the proposed project would exceed those now generated by the mining operation.

Why does the DEIS 4-91 conclude that closing the Mesquite Mine would reduce emissions which could be used to offset emissions from the proposed LF project since the mine was not permitted to operate for purposes other than gold mining, and likely not intended to operate in perpetuity? Closure of the Mesquite Mine is neither certain nor guaranteed (DEIS 2-101, 2-102). Even if the mine does close, closure is not anticipated for another 10 to 15 years (DEIS 1-8) and the mine is expected to continue operating at its present level until 1997 (DEIS 4-91). What will happen if new technologies and economics or location of new sources of higher quality gold are found to make the operation of the mine for low grade ores profitable and/or if economic conditions improve (DEIS 2-102)? Gold Fields no longer owns Mesquite Mine (Filler 6/8/94). Given these considerations, how can mine emissions be considered as offsets for the proposed project?

Odor impacts:

638 See questions under assumptions re odors. How frequently will the MSW residue be covered? Will it be more than once/day? If so, how many times/day and/or at what time intervals? Will cover be placed more frequently when ambient temperatures reach 110° or 120°F in summer months? If not, why not?

Potential for fires:

639 What guarantees are there that with only 80% of LFG being captured by the LFG collection system, that there would not be the potential for an explosion caused by a spark, smoking or lightning? What is the potential for spontaneous combustion in elevated summer temperatures? Will smoking be permitted at the LF site?

Emissions and Impacts of Energy Recovery Options:

640 DEIS discussion of Energy Recovery options is inadequate because it fails to explain precisely what is meant by "augmentation of LFG generation" and that this implies addition of water to create a MSW residue moisture content of 40% (Appendix F:6-13). Why doesn't the DEIS (at 4-109) discuss the impacts of increased moisture content in MSW residue on leachate generation in addition to impacts on LFG generation? What are the potential impacts of increased leachate generation and increased LFG and VOC generation

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 636

Only the Carson transfer station is operated by Western Waste Industries and it is permitted by the CIWMB to handle 2,600 tpd.

Response to Comment No. 637

The sale of the mine contained the condition that emission reduction credits (ERCs) would continue to be owned by the Applicant for the Proposed Action. ICAPCD Rule 207 and 207.1 clearly provide for ERCs to be created at a rate that is determined by the rate of closing the mine. These ERCs become available for use right away or can be banked for future use. The amount of ERCs that can be created by closing the mine are finite and defined by the aforementioned rules. The size of the mine emissions relative to the size of the landfill emissions does not affect the viability of the mine ERCs as one source of offsets for the Proposed Action.

If emissions from the mine are not reduced (because the mine closes or reduces operations), these offsets would not be available to the proposed landfill project. If economic conditions were to change following closure of the Mesquite Mine, new offsets would be required in connection with air quality permits that a reopened mine would need to begin further operations.

Response to Comment No. 638

As described in the Draft EIS/EIR, daily cover would be placed over the MSW residue once every 24 hours or more frequently to control litter and/or control vectors. The daily cover is provided in accordance with state regulations and is expected to reduce odor impacts, reduce access by vectors, and to assure a tidy site. Temperatures of 110° to 120° F during the day will not change the frequency of placement of daily cover.

Response to Comment No. 639

Though LFG collection rates are actually expected to be much higher than the 80 percent assumed in the Draft EIS/EIR, if only 80 percent were to be collected, any LFG that escaped from the landfill would reach the surface at very low concentrations and would be diluted even further once it came in contact with the air. The impacts of such escaping LFG to workers or the environment generally would not be significant at these very low

Response to Comment No. 639 (Cont'd)

concentrations. Potential impacts could occur if closed structures were present on the landfill surface where the LFG could be trapped and allowed to buildup in concentration. No such structures would be allowed on the landfill surface. Perimeter gas probes are planned (please see description in response to Comment No. 110) to monitor for lateral migration of LFG to assure that it would not reach enclosed structures in the landfill operations area.

The landfill would have designated smoking areas.

Temperature within the MSW residue would be determined by the exothermic anaerobic decomposition and would typically be approximately 100° to 130° F (U.S. EPA, 1991). At these temperatures, spontaneous combustion would not occur as the component that would ignite first (i.e., paper) requires a temperature of approximately 450° F to ignite. This temperature level would not occur within the compacted MSW residue.

Response to Comment No. 640

This EIS/EIR adequately describes the environmental impacts of energy recovery options (please see response to Comment No. 410). MSW residue conditioning would only be pilot tested in the Proposed Action. The pilot testing would explore the optimum use of nutrients and additional water, which is why a specific formula was not described in the Draft EIS/EIR. The environmental analysis considered the air quality impacts of a maximum application of conditioning to assure that maximum air quality impacts were calculated. See also response to Comment No. 409 concerning the pilot program.

on groundwater quality and the need for additional vadose zone monitoring?

DEIS Sec. 4.1.8.6 AIR QUALITY MITIGATION MEASURES
Air quality offsets (DEIS 4-113):
DEIS and Appendix F discussion of agricultural plant material offsets raised many questions which must be addressed. See previous comments.

641 How would establishing monitoring stations for air quality serve to mitigate any adverse impacts of the proposed project on air quality?

Why don't DEIS mitigation measures for fugitive dust (DEIS 4-113, 4-114) include the three tier contingency program described in Appendix F:6-51; DEIS 4-81 and S-36? If it isn't included under mitigation measures it isn't mandatory, is it? Why shouldn't all permanent roadways be paved ASAP to reduce potential for generation of fugitive dust?

Why are there no mitigation measures included in Sec. 4.1.8.6 that would limit the total acreage of MSW residue exposed at any one time? Sec. 4.1.2.3 limits the working face to less than 0.5 acres (DEIS 4-150). Would that be the same as the total acreage of MSW residue which could be exposed at any one time?

What mitigation measures could reduce impacts along truck haul routes from transfer stations/MRFs to intermodal facilities?

Sec. 3.1.9 LAND USE AFFECTED ENVIRONMENT
Sec. 4.1.9 ENVIRONMENTAL IMPACTS LAND USE

642 Why should any federal lands not directly used for the proposed LF operation itself be transferred to AOI or Gold Fields when Alternative I-Smaller footprint could accomplish the goals and objectives of the proposed project without using a large acreage of Federal lands? Federal lands are an important public resource and all buffer areas surrounding any proposed LF project should be retained by the Federal government as public resources for future use. Why shouldn't a project applicant place a perimeter boundary fence around a federally owned buffer zone, with buffer lands to remain in Federal ownership? Fencing could be removed to the base of the LF footprint after LF operations cease.

643 For a project in Imperial County and with habitat impacts in Imperial County, why are proposed exchange parcels located in Riverside County and near (DEIS 3-108, 3-109; 4-118) rather than in an ACEC managed, in part, for the threatened desert tortoise, in whose habitat the project is proposed?

644 Why doesn't the DEIS Sec. 3.1.9 include the Conservation/Open Space Element, Water Element, Transportation/Circulation Element, Geothermal/Transmission Element, and Seismic and Public Safety Element of the County General Plan as being relevant to the proposed project?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 641

The three-tier fugitive dust control program is required by the Draft EIS/EIR as stated in the last full paragraph on page 4-113 and described on page 4-81. The PM_{10} monitoring stations are included as an integral part of this program because the application, timing, and choice of physical particulate reduction measures would depend on the actual PM_{10} concentrations monitored at these stations. As can be seen in Appendix B (Emission Tables) of Appendix F (Air Quality Analysis of the Draft EIS/EIR), roads are paved overall as soon as possible so that only small segments near the working face are unpaved. Semi-permanent sections of road leading to the working face would be treated with a surfactant, which would create a hard pavement-like surface. Please see response to Comment No. 278. The working face of MSW residue itself is only, at most, a small contributor to PM_{10}, compared to the PM_{10} reentrained from paved roads, as shown in those same tables. Emission from placed and compacted MSW residue that has not yet been covered with daily cover would not be a substantial contribution to LFG emissions, and MSW residue would be covered at least every 24 hours. Therefore, emissions from uncovered MSW residue would not be significant, and it is not necessary to limit the working face to mitigate air quality impacts.

Mitigation measures are not needed along truck haul routes between transfer stations/MRFs and the LATC because net emissions would not increase over the No Action Alternative. The mitigation measures for future transfer stations/MRFs is properly addressed in the context of a specific MRF proposal, and not in this EIS/EIR.

Response to Comment No. 642

Please see responses to Comment Nos. 304 and 438. BLM believes that the proposed exchange would better serve the public interest than the letting of a long-term exclusive lease for the buffer areas.

Response to Comment No. 643

At least 5,577.48 acres of land in Imperial County within designated Critical Habitat for the desert tortoise in and near the Chuckwalla Bench ACEC, would be provided to BLM as exchange for the 1,750 acres of BLM-managed land on-site and as compensation for project-related habitat impacts. The exchange parcels would provide the public with new public lands having an equal or higher appraised value compared to the BLM lands on-site that would be conveyed to the Applicant. The exchange and

Response to Comment No. 643 (Cont'd)

compensation parcels would, in addition to the other biological mitigation measures identified in this EIS/EIR, mitigate biological impacts such that they would not be significant. The compensation parcels would also provide the public additional recreational opportunities to offset the loss of recreational opportunities associated with the BLM lands on-site that would be conveyed to the Applicant. An additional 320.48 acres of land in the SRMNSA in Riverside County are included as offered exchange parcels. These lands would help to consolidate BLM holdings into larger contiguous areas.

Response to Comment No. 644

Rather than describe each relevant element of the Imperial County General Plan in Chapter 3 and then again in Chapter 4, the elements are only described in Chapter 4 of this EIS/EIR. The Water Element, Transportation/Circulation Element, Geothermal/Transmission Element, and Seismic and Public Safety Element were not considered to be relevant because project-related impacts would not be significant as described in various Chapter 4 sections that specifically address each of these issues and there was no need to repeat these conclusions in Section 4.1.9.

645 If one of the BLM management requirements for the Singer Geoglyphs ACEC is to "Restrict Mineral Exploration and Development" (DEIS 3-113), how would development of a LF within the project site be consistent with BLM management requirements?

646 DEIS Sec. 4.1.9.2 is very selective in its reference to objectives in the Land Use Element (LUE) and assertions that the proposed action would be consistent. There are other objectives with which the proposed action is inconsistent. They include:

Objective 3.4 "Protect/improve the aesthetics of Imperial County and its communities." (LUE:33.) Could the proposed mega landfill ever be considered consistent with the existing Recreation/ Open Space land use designation by a reasonable person? It seems unlikely that a reasonable person with no financial ties to the proposed LF could view a 2290 acre LF up to 475 feet high as improving the aesthetics of the area.

Objective 9.1 "Preserve as open space those lands containing watersheds, aquifer recharge areas, floodplains, important natural resources, sensitive vegetation, wildlife habitats, historic and prehistoric sites, or lands which are subject to seismic hazards and establish minimum lot sizes." (LUE:35, 36.) The proposed action is grossly inconsistent with the objective to preserve wildlife habitats as open space. As proposed, several thousand acres of wildlife habitat would be destroyed and/or removed from use by wildlife for more than 100 years.

Objective 4.3 of the LUE adopted on 11/93 by Imperial County Board of Supervisors states: "Maintain and require compatible land uses within the existing communities" (LUE:34.) The DEIS:4-119 misrepresents the text of objective 4.3. Why?

647 DEIS Sec. 4.1.9.2 is also selective about the impacts of the proposed action with respect to objectives of the Conservation/Open Space Element (C/OSE) of the Imperial County General Plan. DEIS has omitted reference to a number of important C/OSE goals and/or objectives with which the proposed action is inconsistent. These include:

Goal 1: "Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions." (C/OSE:42.)

Objective 1.1 "Recognize that the degradation of one natural resource will have a concomitant negative effect upon the total resource base, including water, vegetation, air wildlife, soil, and minerals." (C/OSE: 42.)

Objective 1.2 "Encourage only those uses and activities that are compatible with the fragile desert, aquatic, and marshland environment." (C/OSE:42.) Project is inconsistent.

Objective 1.4 "Develop standards to protect significant natural resource areas for the purpose of enhancing both the planning and decision-making process." (C/OSE:42.)

Goal 2: "The County will preserve the integrity, function,

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 645

Part of the Proposed Action is to revise the boundary of the Singer Geoglyph ACEC to omit that portion north of SR 78 because there are no important cultural resources included in that portion of the ACEC located north of SR 78. Revising the Singer Geoglyph ACEC to omit that portion north of SR 78 is desirable whether the proposed land exchange and rail spur right-of-way are approved by BLM or not. Because there are no important cultural resources north of SR 78, the proposed landfill would not be inconsistent with this management requirement.

Response to Comment No. 646

This EIS/EIR properly focused on elements of the Land Use Element that could be significantly impacted by the Proposed Action. Objective 3.4 is part of Goal 3, which is to achieve balanced economic and residential growth while preserving the unique natural, scenic, and agricultural resources of Imperial County. Even though visual impacts were found to be significant, the proposed site is already disturbed by gold and sand and gravel mining activities and it is not a unique natural, scenic, or agricultural resource. The proposed project would create economic benefits as estimated in Section 4.1.13. The proposed project does achieve a balance between economic growth and the protection of unique natural, scenic, and agricultural resources. Page 4-118 of the Draft EIS/EIR recognizes that the proposed landfill would not be in conformance with the recreation designation of the proposed site.

Objective 9.1 is part of Goal 9, which is to identify and preserve significant natural, cultural, and community character resources and the County's air and water quality. This comment focuses on wildlife habitats. The proposed site, including 1,750 acres of BLM-managed land, is shown as containing sensitive habitat on the General Plan's Conservation and Open Space Element Habitat Map. The site specific biological field surveys show that the proposed site is lower quality habitat that is relatively similar to much of the surrounding desert area. The 5,577.48 acres that comprise the offered exchange and compensation lands in Imperial County are within designated Critical Habitat for the desert tortoise and, according to the General Plan, the Imperial County offered exchange parcels are within sensitive habitat for the golden eagle. One of the offered exchange parcels is located in the Milpitas Wash Wildlife Habitat Area. Because these lands, which contain more significant natural resources, would be exchanged and provided as

productivity, and long-term viability of environmentally sensitive habitats, and plant and animal species." (C/OSE:43.)

Objective 2.2 "Protect significant fish, wildlife, plant species, and their habitats." (C/OSE:43.) Project is inconsistent.

Objective 2.3 "Protect unique, rare, and endangered plants and animals and their habitats." (C/OSE:43.) Project is inconsistent.

Destruction of desert tortoise habitat adjacent to the existing Mesquite Mine for the purposes of a mega-landfill, with an unacceptably low compensation ratio compared to that used for the Eagle Mountain Project, and the exchange of proposed project site desert tortoise habitat lands for lands outside the already designated Chuckwalla Bench ACEC in Imperial County and for other lands within the Santa Rosa Mountains in Riverside County do not make the proposed project consistent with either of these objectives or goal 2, contrary to the assertion of DEIS:4-121 which incorrectly identifies only Objective 2.3. Simply salvaging some vegetation and/or land exchange for land in Riverside County are inadequate to mitigate destruction of so much habitat in Imperial County.

Objective 2.6 "Attempt to identify, reduce, and eliminate all forms of pollution which adversely impact vegetation and wildlife." (C/OSE:43.)

Goal 7: "The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational and tourist activity." (C/OSE:45.) Project is inconsistent.

Objective 7.1 "Encourage the preservation and enhancement of the natural beauty of desert and mountain landscape." (C/OSE :45.) We have yet to encounter anyone who lives near a landfill or mega-landfill, or a proposed landfill who believes that such a land use is either aesthetic or enhances the natural beauty of desert or mountain landscape or any other area. The proposed project would create mountains of MSW residue covered by mine overburden and/or ore residue which would tower above the existing piles at the Mesquite Mine. Because the LF would require maintenance and post-closure care in perpetuity where it would always remain a potential threat to underlying groundwater resources of the sub-basin, it is likely to always be an unattractive reminder of the true nature of this man-made topographic feature which will continue to obscure the rugged beauty of the Chocolate Mountains close by.

The Sierra Club does not agree that a mega-landfill at the proposed site would be "more natural looking" or significantly "reduce the visual contrast the existing man-made earthen landforms exhibit." (DEIS 4-121.) Therefore the proposed project is inconsistent with what DEIS 4-121 identifies as Objective 2.1 of the C/OSE. By contrast, Objective 2.1 of the C/OSE adopted by the County Board of Supervisors states "Conserve wetlands, fresh water marshes, and riparian vegetation." (C/OSE:43.) To what document is the DEIS referring? None of the numbered Objectives referenced as C/OSE Objectives corresponds to number of same text in C/OSE. Why?

Goal 8: "The County will conserve, protect, and enhance the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 646 (Cont'd)

compensation for the lower quality lands on-site, the proposed project is in conformance with Goal 9 and Objective 9.1.

Land Use Objective 4.3 in the Draft EIS/EIR was actually Land Use Objective 2.3. This typo has been corrected in this Final EIS/EIR.

Response to Comment No. 647

The proposed project does minimize environmental impacts (Goal 1). The cumulatively significant air quality impacts would only apply to an area within about one mile of the proposed landfill site, and would be reduced with implementation of the mitigation measures described in this EIS/EIR and by any additional measures that may be required by future ICAPCD rules. The cumulatively significant traffic impacts to SR 78 in the vicinity of Glamis during weekends from October 1st to May 31st have been minimized to the extent feasible by scheduling all but employee trips to avoid that period. The project site is already visually impacted, nevertheless, the creation of the proposed landform would be significant. It would be only visible to a very few permanent residences or businesses. All other impacts would be less than significant after mitigation, thereby minimizing the potential impacts of the Proposed Action.

This EIS/EIR recognizes that the proposed project would have a potential to impact the total resource base, including water, vegetation, air, wildlife, soil, and minerals (Objective 1.1). Each of these issues is specifically addressed in this EIS/EIR and mitigation measures to reduce impacts to below a level of significance have been identified with the exception of cumulatively significant air quality impacts.

The proposed project is not compatible with the fragile desert environment on-site (Objective 1.2). Therefore, off-site mitigation shall be provided. The County is not encouraging the proposed project, but is reacting to a proposal originated by a private applicant (please see the Memorandum of Understanding between the BLM, County of Imperial, and Applicant contained in Appendix A1 of this EIS/EIR).

The proposed project would result in the protection of at least 5,577.48 acres of designated Critical Habitat for the desert tortoise in Imperial County for the project-related impacts to 3,657 acres of previously undisturbed Category III (lowest quality) habitat in Imperial County

Response to Comment 647 (Cont'd)

on-site. These parcels that would be protected are currently privately held and occur in a 'checker-board' pattern with BLM-managed lands. Obtaining these parcels will enhance BLM's ability to assemble large, contiguous areas for the preservation of biological resources in the Colorado Desert. Therefore, the project is in conformance with General plan Objective 1.4, Goal 2, and Objectives 2.2 and 2.3.

The proposed project includes numerous mitigation measures to reduce and eliminate virtually all project-related pollution sources that could potentially affect wildlife in the vicinity of the proposed site. As described above, obtaining the exchange and compensation parcels would enhance BLM's ability to assemble large, contiguous areas for the preservation of biological resources in the Colorado Desert. Therefore the proposed project is in conformance with Objective 2.6.

As described in Section 4.1.11 of this EIS/EIR, visual impacts would be significant and unmitigable. The sentence that begins at the end of the 12th line of the last paragraph in column 1, page 4-119 of the Draft EIS/EIR states the following: "If implementation of the Proposed Action would result in a significant unmitigable impact to an element of the human environment addressed in this EIS/EIR, then the Proposed Action would not be in conformance with the corresponding General Plan Element objective. Therefore, the proposed project is not in conformance with Conservation and Open Space Goal 7 and Objective 7.1 as described under Objective 7.1 in this Final EIS/EIR (inadvertently referred to as Objective 2.1 in the Draft EIS/EIR, this typo has been corrected in this Final EIS/EIR).

Source reduction, recycling, and reuse cannot fully replace the need to landfill or transform (i.e., burn) MSW. With mitigation, the proposed project is in conformance with Objective 8. Also, please see response to Comment No. 368.

Based on wells drilled within the subbasin, it is not a source of potable ground water because water production rates are very low due to the low permeability of the Bear Canyon Conglomerate. As described in this EIS/EIR, the site is not a source of ground water recharge because rainwater that falls on the site evaporates before it can percolate to the ground water table. Therefore, the project is in conformance with Objective 8.9.

water resources in the planning area. (C/OSE:45.)

Objective 8.6 "Eliminate potential surface and groundwater pollution through regulations as well as educational programs. (C/OSE 45.) Source reduction, recycling and reuse would be better than a mega landfill to accomplish this objective, especially when one considers that the environmental benefits relative to water pollution would be in other counties distant from the project site.

Objective 8.9 "Prohibit the inappropriate siting of solid or hazardous waste facilities next to water bodies or over sources of potable groundwater or recharge basins....." (C/OSE :45.) Because the sub-basin over which the proposed project sits discharges into the Amos-Ogilby basin, there will always be the potential for groundwater degradation. Both the sub-basin and Amos-Ogilby basin have waters which are in some places potable, and other places potable with minimal treatment. Because both the subbasin and Amos-Ogilby basin have groundwater with a TDS of less than 3,000 mg/l and meet the yield criteria, they are considered as "suitable or potentially suitable, for municipal or domestic water supply" (SWRCB 1988). By contrast to DEIS conclusions, we believe that the
648 proposed project as described, even with proposed mitigations, would result in the potential for significant water resource impacts, essentially in perpetuity.

649 Concerns about water quality of the Amos-Ogilby basin are heightened by varying proposals to use the basin for recharge and recovery of water for future needs. Without discussing the merits or feasibility of any such proposals, we direct attention to C/OSE.

Objective 8.14 "Coordinate with the appropriate agencies for the availability of water to meet future domestic, industrial/ commercial and agricultural needs." The wisdom of siting a LF over a portion of a basin which has such potential uses is questionable and inconsistent with Objective 8.9.

Goal 9. "The County shall actively seek to improve the quality of air in the region." (C/OSE:46.) The proposed project would contribute to further degradation of air quality in the County as indicated in discussions of air quality impacts. It would improve air quality of the SOCAB. However, improving air quality in urban areas of Los Angeles is not one of the objectives of the Imperial County General Plan.

650 Goal 10: "Open space shall be maintained to protect aesthetic character of the region, protect natural resources, provide recreational opportunities, and minimize hazards to human activity." (C/OSE:46.) Proposed project is inconsistent.

Objective 10.9 "Conserve desert lands, within the county's jurisdiction for wildlife protection, recreation, and aesthetic purposes." (C/OSE 4-122.) Contrary to assertions of the DEIS, loss of 3,657 acres of wildlife habitat will be significant even if the ownership of unoccupied private lands near an ACEC are transferred

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 648

The commentor's disagreement with the conclusion that water quality impacts would not be significant is noted.

Response to Comment No. 649

The East Mesa Recharge and Recovery Wells would not be impacted by the proposed landfill project because that project would occur about 18 miles upstream and in a basin with potentially no hydraulic connection to the Amos Ogilby Basin. Based on wells drilled within the subbasin, it is not a source of potable ground water because water production rates are very low due to the low permeability of the Bear Canyon Conglomerate. As described in this EIS/EIR, the site is not a source of ground water recharge because rainwater that falls on the site evaporates before it can percolate to the ground water table. Therefore, the project is in conformance with Objective 8.9.

The proposed project would result in a net increase in emissions in Imperial County; however, it would operate in compliance with all federal and state requirements for the attainment of air quality objectives (Conservation and Open Space Element Objective 9.1) and would not inhibit the County's ability to cooperate with state and federal agencies in an effort to attain air quality objectives (Conservation and Open Space Element Objective 9.2). Also, by improving air quality in the SOCAB, the air quality in Imperial County would be improved. Therefore, the proposed project is in conformance with Conservation and Open Space Element Goal 9.

Response to Comment No. 650

The project is in conformance with Conservation and Open Space Element Goal 10 and Objective 10.9 because of the required exchange and compensation. The commentor's disagreement with adequacy of this mitigation is noted.

to BLM for federal management, even if off-site water guzzlers are installed for larger wildlife, and even if a raven monitoring program is completed. The Applicant has failed to provide any raven control program for public review so this cannot be considered as any mitigation effort at present.

651 It seems incomprehensible that the proposed LF could ever be considered "a more natural landform" than even the mine ore residue piles.

652 After discussing issues related to various objectives of the General Plan Elements, why does the DEIS fail to discuss the relevant implementation policies and programs which are applicable to the proposed project? The C/OSE policies related to Biological Resource Conservation are applicable. Of particular concern is the Policy which states that:

> Landscaping should be required in all developments to prevent erosion on graded sites and, if the area is contiguous with undisturbed wildlife habitat, the plan should include revegetation with native plant species. (C/OSE:49.)

This policy is followed by 1.5 pages of detailed programs for revegetation and habitat restoration (C/OSE:49-51.) The DEIS for the proposed project has indicated the intent not to revegetate the project site. Relevant issues were raised and ignored at the time of the General Plan Update process. Because the County adopted this policy and these programs in 11/93, it would be a serious mistake to exempt the first major project that comes along from the requirement for revegetation and habitat restoration and then require it for projects with lesser environmental impacts. Why should one of the largest projects ever proposed for the County be exempted from requirements imposed on smaller projects?

653 Sec. 3.1.10 AFFECTED ENVIRONMENT - RECREATIONAL RESOURCES
Sec. 4.1.10 ENVIRONMENTAL IMPACTS - RECREATIONAL RESOURCES

DEIS fails to discuss the potential degradation of recreational lands by blowing litter from the proposed LF site and the potential for reduced quality of recreational experience, especially in wilderness areas in the vicinity. See also cumulative impacts discussion.

Sec. 3.1.11 VISUAL RESOURCES
Sec. 4.1.11 IMPACTS ON VISUAL RESOURCES

Alternative cover materials

654 What "other materials" are contemplated for use an "an alternative daily cover" (DEIS 4-128)? Does the Applicant contemplate the use of incinerator ash, contaminated soil, sewer sludge or composted sewer sludge as alternative cover material? What "use of foam" (DEIS 4-128) is intended? Why doesn't DEIS contain any detailed discussion of the "alternative cover" or "use of foam" as a cover material in the project description, and environmental impacts sections? What are the characteristics of the unidentified foam, and how does it hold up under intense heat and solar radiation typical of the proposed site, particularly during summer months? How would it break down physically and/or

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 651

Comment noted.

Response to Comment No. 652

Please see response to Comment No. 151.

Response to Comment No. 653

Litter from the proposed landfill would be controlled by the Applicant as a condition of the CUP, and monitored by the County, therefore impacts would not be significant. Litter control measures that would be implemented include the emptying of compacted MSW residue from containers, the use of litter fences, landfill faces protected from the wind by berms, more frequent application of cover material, and a litter patrol. As described in Section 4.1.10, no significant impacts to wilderness areas would occur.

Response to Comment No. 654

Please see responses to Comment Nos. 172 and 382.

chemically under overlying layers of compacted MSW residue and daily cover?

Why aren't these unidentified alternative cover materials assessed for potential breakdown products and interactions with MSW residue, leachate and LFG generation and functioning of LCRS and LFG collection systems? Does the applicant consider the use of imported incinerator ash and contaminated soils for alternative cover materials as WWI has done at its Miller County. Arkansas landfill? Use of any such materials may pose health risks to employees. Why hasn't information on alternative cover materials been included in the DEIS for public review and comment? This information should be included in a Draft Subsequent EIS/EIR to be released for a full public comment period of 90 days.

Simulated views of proposed project:

655 Fig. 4-16 (Viewpoint #1) presents a misleading view and underestimates the visual impacts of the proposed project because the proposed "landfill is darkened slightly" so that it is not as readily obvious as the overburden piles from which it will be covered. The landfill obscures the rugged peaks of the Chocolate Mountains which are visible in the top photo, rather than blending in. The light overburden piles and thus the landfill cannot blend in with the darker Chocolate Mountains.

656 Fig. 4-17 (Viewpoint #2) Even stretching our imagination, we were not able to reach the conclusion of the pro-project DEIS that either the "gradual slopes" or height of the light colored overburden covering the proposed LF would in any way "help the landfill to blend in with the surrounding visual environment." It would remain in high contrast to the surrounding environment.

657 Fig. 4-18 (Viewpoint #3) bottom photo depicts not only a sharp contrast with the surrounding environment, but an eyesore from an otherwise relatively benign view of the overburden piles. Similarly Fig. 4-19 is no improvement.

658 **Cumulative impacts of light and glare:** How would the increased lighting of the area prior to closure of the Mesquite Mine and continued long-term lighting, particularly in concert with the cumulative impacts of lighting at the Calipatria State Prison impact astronomical observations and studies at the observatory in the Laguna Mts in eastern San Diego County, wildlife and quality of recreational experience for visitors to wilderness and ACEC areas nearby?

Sec. 3.1.12 & 4.1.12 ENVIRONMENTAL HEALTH & PUBLIC SAFETY IMPACTS

659 **Hazardous materials in the waste stream**

As noted earlier, the MSW residue will contain hazardous waste because it is not possible to remove much of that waste after its removal from place of origin. DEIS contains inadequate information on details of how hazardous materials would be detected and removed from the MSW at transfer stations/MRFs or later at the LF itself. Why? Is it because detection and removal are unlikely to be very successful? What are the detailed procedures for such detection

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 655

It was necessary to darken the picture to show the difference between the proposed landfill and the overburden piles. The fact that the landfill is darkened is disclosed on the simulation. The EIS/EIR text described the variable landfill shape, not the color of the landfill as blending with the Chocolate Mountains.

Response to Comment No. 656

The commentor agrees with the conclusion of the Draft EIS/EIR that "the overall contrast of the proposed landfill from this viewpoint would be seen as high." (Draft EIS/EIR end of first paragraph under Viewpoint 2, page 4-131)

Response to Comment No. 657

Comment noted.

Response to Comment No. 658

Lighting of facilities at night would not significantly impact the Mt. Palomar Observatory because of the relatively low intensity of project-related light, the mitigation measure requiring lighting to be pointed downward, and the distance between the proposed site and the observatory. Similarly, the proposed landfill would be visible, but would not be intrusive to viewers from the North Algodonas Dunes Wilderness Area. Section 103(d) of Public Law 103-433 that establishes the North Algodonas Dunes ACEC as a Wilderness Area states "The Congress does not intend for the designation of wilderness areas in Section 102 of this title to lead to the creation of protective perimeters or buffer zones around any such wilderness area. The fact that nonwilderness activities or uses can be seen or heard from areas within a wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area." Therefore, impacts would not be significant.

Response to Comment No. 659

Please see response to Comment No. 323. As described in Draft EIS/EIR Section 2.1.9 and 4.1.12, some small amounts of household hazardous wastes are anticipated to be present in the MSW residue. State and federal laws concerning MSW landfill construction are designed with the anticipation that these materials would be present. Table 2-4 in Section 2.1.9 of the Draft EIS/EIR shows a list of the typical types of household hazardous waste that are expected to be present in MSW residue. As can be seen in this table, these materials, though hazardous, would not pose a threat to landfill workers at such small levels.

and removal by workers for storage and transport to a final repository?

Because of chemical interactions within the landfilled MSW residue, the hazardous waste may or may not present risks to landfill employees or groundwater resources in the future, including after LF closure. These issues are discussed elsewhere in these comments.

660 Vectors and disease control

Once again the DEIS (4-142) fails to explain if, in fact, covering of MSW residue will actually occur more than once per 24 hour period. What is the anticipated time interval between depositing MSW residue and placement of daily cover? How many times/day will cover materials be placed over MSW residue? What criteria will be used to determine frequency of placement of daily cover?

661 Insecticide use for vector control:

How will transfer station/MRF and landfill operating procedures (DEIS 4-142) eliminate the possibility of introducing insects (especially medfly) to Imperial County from areas not presently quarantined for fruit flies? What insecticide or insecticides would be used to kill vectors (DEIS 4-142) prior to transport of MSW residue to the proposed site? What are the breakdown products of the intended pesticides? Are the breakdown products more toxic than the insecticide itself as is the case with malathion?

How would the addition of insecticide to MSW residue interact with other chemicals and materials in the MSW residue? How would the addition of insecticides impact aerobic and anaerobic decomposition of the MSW residue and effect leachate generation, and LFG generation? How would the addition of insecticide to MSW residue potentially interact with or influence the performance of various components of the liner system, leachate collection and recovery system, and LFG collection system?

662 Why does Sec. 4.1.12.2 assert that the predominant wind direction at the proposed site would prevent insect vectors from reaching agricultural fields (DEIS 4-142) when the predominant wind direction during winter months is from north and northeast during winter months? (Appendix F Table 2-1, and Figs. 2.2, 2.5, 2.6, 2.7.) The nearest agricultural fields appear to be 15 miles away. Years of experience indicate that winds from east and southeast regularly bring large numbers of flies from feedlots into the western desert areas more than 20 miles away. Similarly in past years east and southeast winds have brought infestations of white flies to the Ocotillo area. Consequently insect larva that may not be destroyed by insecticide at transfer stations could become an agricultural problem under conditions favorable for development and subsequent transport by winds at the site.

663 Fire:

More serious than a fire started by lightning is the potential for an explosion or for damage to a liner, or a portion of the LCRS

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 660

As described in Section 2.1.4 of the Draft EIS/EIR daily cover would be provided at least once every 24 hours. Therefore, the maximum potential time interval between deposit of MSW residue and placement of daily cover is 24 hours. Placement of daily cover could increase if it is determined to be necessary to:

- Control vectors.
- Provide protection on windy days.

This determination would be made based upon monitoring by landfill personnel each day and periodic inspections by regulatory agencies.

Response to Comment No. 661

Please see response to Comment No. 8. Insecticides used for vector (e.g., medfly) control must first be approved by the EPA, and it is not possible to predict what insecticide may be used. These insecticides are designed to breakdown quickly (in a matter of a few days) into nontoxic by-products. As a result, use of insecticides for control of medfly and other potential vectors would not have a potential to adversely affect leachate or the proposed LCRS or LFG collection system. Please see response to Comment No. 110.

Response to Comment No. 662

Please see response to Comment No. 8. While predominant winds would contribute to limiting travel by airborne vectors travel from the landfill to agricultural areas during spring and summer months, the commentor is correct that during winter months these winds would not contribute to control of vectors. The text of this EIS/EIR has been revised to indicate that transfer stations/MRFs and landfill operating procedures would eliminate the potential for fruit flies (and other insect larvae) to be transported to Imperial County by the proposed project. This was confirmed in a 1994 letter from the California Department of Agriculture. To confirm this, the Applicant would be required to set up a series of fruit fly traps at the landfill in accordance with the Imperial County Department of Agriculture. This would not be an environmental mitigation, but regulatory requirement.

Response to Comment No. 663

The analysis in Section 4.1.12 of the Draft EIS/EIR considers the potential for explosions. As the discussion indicates, dense compaction of MSW, provision of an LFG control system, and continuous monitoring of the gas stream being collected would be provided to assure that the potential for explosion does not exist.

or LFG collection system. (ERF #177.)

664 Worker Safety: (DEIS 4-145, 4-146)
MSWLFs "release a variety of hazardous chemicals in their gaseous emissions." (Lee & Jones-Lee 1993c:14.) They quote Hodgson et al (1992) who studies the VOC emissions from MSWLFs. Hodgson found that MSWLFs emit gases with a variety of chlorinated solvents and benzene, many of which are suspected or known carcinogens at concentrations that are of potential significance to the health of those exposed to these emissions. (Lee & Jones-Lee 1993b:14.) Of the more than 60,000 chemicals in use in the US, typically fewer than 200 are analyzed in air quality surveys. "Many of these chemicals would be non-odorous at concentrations that are hazardous to public health, and therefore would not be perceived to be present by the public who use lands near the landfill." (Lee & Jones-Lee 1993c:14.) Landfill employees are at the greatest risk because of their proximity to the source.

What precautions would be taken to protect workers from the risks posed by inhalable toxics from fugitive LFG emissions, including those which are referenced in DEIS and Appendix F discussions of toxics and Public health and safety? What are protections against risks from inhaled PM_{10}s? (ERF #373.)

If employees at the project site are unemployed former farm workers or those employed in the agricultural chemical application businesses, to what extent would the additional exposure to pesticide residues which might contaminate shoes or clothing and/or pesticide contaminated dust or volatiles originating from insecticide sprayed MSW residues add to the chronic health problems that may be the result of long-term low-level exposure from agricultural related work or from living near or being exposed to drift from fields which are sprayed with agricultural chemicals? How would working at the project site affect the already increased risk to workers with histories of previous exposure to toxics and PM_{10}s?

Moses discusses the documented acute and chronic human health effects of pesticide exposure (Moses 1993:165-169). Not only are the active ingredients in insecticides, herbicides, nematocide, and fungicides toxic, but the inert ingredients may be as toxic or more toxic than the active ingredients in the pesticides themselves (Moses 1993:162). In California "Latinos of Mexican origin ... comprise over 90% of the [farmworker] workforce (Martin et al. 1985)." (Moses 1993:162.)

Would the insecticide used and its breakdown products, either alone or synergistically in combination with other chemical or chemical breakdown products or agricultural chemicals, act as endocrine disrupting estrogen mimicking chemicals that could interfere with hormones which may adversely impact male reproductive development and functioning in exposed workers? (ERF #369, 370, 371, 377; Colburn, et al. 1993:378-384.) This question is important given the possible history of Imperial County residents exposure to agricultural chemicals and PM_{10}s. ("Right to Farm Ordinance", Imperial County GPU. Agricultural, Element Appendix B

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 664

Please see response to Comment No. 619.

p.8-3.)

Railroad Accidents:

665 Any substantial derailment adjacent to or over a water source including the Salt Creek ACEC could result in the contamination of water source by chemicals or hazardous materials present in the MSW. Staff at RWQCBs contacted 6/14/94 did not believe that all liquid or dry hazardous materials in MSW could be removed at transfer stations/MRFs prior to rail transport to a Landfill. What criteria would trigger involvement of various emergency response personnel and agencies in the event of an accident/derailment/ spill? See discussion of these issues elsewhere in these comments.

666 Truck transport safety:

What impacts on other truck transport activities would be created by the transport of MSW residue containers by truck (1,600 trips/day) in the event of an extended rail delay (DEIS 4-148)? What impacts would the 1,600 truck trips down the Mountain Springs grade of I-8 and interstate routes from Los Angeles area through San Diego have on other traffic using that route?

Sec. 4.1.12.3 Environmental Health Impacts Mitigation Measures

667 Why are the DEIS and its Appendices inconsistent about the size of the "working faces of the landfill"? A mitigation measure states that the working face shall be "less than 0.5 acres per working face" (DEIS 4-150), while Appendix F states that "Working face operations would be limited to approximately 1.14 acres." (Appendix F:6-21.) The mitigation measure of 0.5 Ac working face is correct isn't it?

How would monofilament lines (DEIS 4-150) be attached over the LF working face and at what spacing? How high is the moveable fencing (DEIS 4-151) and how would it be fixed in place as it is moved from place to place?

What precautions would be taken to protect LF employees from exposure to fugitive LFG generated and the 20% of LFG that escapes to the atmosphere in addition to PM_{10}s?

668 APPENDIX H SOCIOECONOMICS
DEIS Sec. 3.1.13 SOCIOECONOMICS
DEIS Sec. 4.1.13 SOCIOECONOMIC IMPACTS

DEIS discussion of economic impacts is inadequate because it includes no discussion of the economic impacts of the proposed project on employee health from exposure to toxics and PM_{10}s. Further, because of the socioeconomic character of Imperial County, any decision to site what is generally considered a Locally Undesirable Land Use (LULU) raises some troubling questions.

For the analysis of socioeconomic impacts, these comments begin the negative impact from the waste industry targeting of a County described as having a high unemployment rate, large population of persons for whom English is not their first language, large "people of color" population, low level of educational skills, and low per capita income. See text and tables of DEIS

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 665

The analysis in this EIS/EIR does not assume removal of all liquids prior to rail haul. Section 4.1.3 of the Draft EIS/EIR contains a discussion of potential impacts to sensitive areas such as the Salt Creek ACEC due to potential derailment and spillage of MSW residue. As discussed in that section, response would occur in accordance with SP Railroad's response procedures. Particular attention would be paid to sensitive areas, such as wetlands, and cleanup would occur in coordination with a biologist and appropriate supervising agencies. Railroad carriers, including SP Railroad, routinely transport sensitive and hazardous materials and have developed response procedures for spills of materials much more hazardous than MSW residue, including liquids.

Response to Comment No. 666

As described in Section 4.1.6 of the Draft EIS/EIR, substantial impacts could occur along the route from the Los Angeles Basin to the proposed Mesquite Regional Landfill based on the emergency truck haul. Substantially greater air and noise emissions would result. At least two extra one-way trips per minute along the proposed route would occur. Inevitable bunching of trucks would occur, and could create traffic impacts in various areas. If the emergency truck haul were to occur during winter weekends in the Imperial Sand Dunes Recreation Area, traffic impacts would also be potentially significant. The potential emergency truck haul was not considered a significant impact however, because of its remote likelihood and temporary nature. This activity is not likely to occur during the life of the project, but in any circumstance would only occur for several days if no other alternative were available.

Response to Comment No. 667

The EIS/EIR discussion of each working face being less than 0.5 acres only considers the area where MSW would be actively placed. The Appendix F discussion of each working face being limited to approximately 1.14 acres includes both the area where MSW would be actively placed as well as the associated cover stockpile/borrow area.

Monofilament lines may or may not be used at the proposed landfill to help control birds. They are typically attached to poles and placed in the working face area in order to disrupt flight path of some birds. Monofilament lines are employed effectively at other landfills. The size

sections on Socioeconomics. This type of community is described as a "Cerrell" community because of the 1984 Cerrell study Political Difficulties Facing Waste-to-Energy Conversion Plant Siting (Appendix C). This Cerrell study (prepared for California Waste Management Board Technical Series) describes the "demographic characteristics of support and opposition to major facilities". Imperial County appears to be an almost perfect fit for the demographic characteristics "least resistant" to citing of major waste facilities and locally undesirable land uses (LULUs).

In the past decade there have been a number of articles and books written on the subject of siting of waste facilities and the relationship to race. One recent book is Bullard's 1993 Confronting Environmental Racism. (Bullard is a professor of Sociology at University of California at Riverside.) Bullard's book contains discussion of areas described as "sacrifice zones", "toxic doughnut" and "Cancer Alley" and "rural poverty pockets". "After all, the international waste and pollution practices of U.S.-based corporations [such as maquiladoras operating on the Mexican side of the US-Mexican border] merely reflect the U.S. domestic policy of targeting low-income, disenfranchised communities of color." (Bullard 1993:5.)

Bullard uses the term "people of color" to include African Americans, Latinos, Asians, Pacific Islanders, and Native Americans. People of color make up 71% of the Imperial County population, but only 42.8% of the population in the State of California (DEIS Table 3-23). In Imperial County 65.8% of the population is of hispanic origin. (DEIS Table 3-23.)

Issues of environmental justice and environmental racism are of concern with respect to the proposed project because, based on comments at public meetings and County demographics, it is presumed that people of color will make up the majority of the employees (not including management) and will be those exposed to the greatest health risks from exposure to fugitive toxics at the proposed project site. Bullard's studies reveal that:

> On close examination of the costs and benefits derived from unpopular environmental decisions, communities of color have borne and continue to bear a disproportionate share of the burden of the nation's pollution problems. (Bullard 1993:11.)

Bullard also notes that communities that host waste disposal facilities (importers) receive fewer economic benefits (jobs) than do the communities that generate the waste (exporters). In other words, those that benefit the most bear the smallest burden. (Bullard 1993:11.)

"The nation is now faced with a garbage and hazardous waste crisis. .... Communities of color have become prime targets as a solution to facility siting gridlock. (Angel 1992)." (Bullard 1993:12.) "Chronic unemployment, poverty, and the lack of sound economic infrastructure all place communities of color at risk from polluting industries which exploit economic vulnerability." (Bullard 1993:12.)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 667 (Cont'd)

and spacing of such lines for the proposed Mesquite Regional Landfill would be dependent upon need and effectiveness.

The size of the movable fencing that would be placed near the working face to prevent excessive blowing of trash may vary depending upon wind direction, working face configurations, and other factors. However, it would be a type of fencing that can be easily transported and quickly set up. These fences would be similar to the portable polyethylene fences that are available for construction today. They come in safety colors such as orange and yellow and they can be rolled for easy transport. Typically they are 4 to 5 feet high, which would be adequate for catching blowing paper, etc. from the working face.

Please see response to Comment No. 619 concerning potential impacts to landfill employees from fugitive LFG.

Response to Comment No. 668

The impacts from project-related toxics and PM_{10} would not be significant as described in the response to Comment No. 619. Ground water impacts would not be significant with the mitigation measures described in this EIS/EIR. Impacts from airborne toxics would not be significant as described in the Draft EIS/EIR and in responses to Comment Nos. 619 and 632. The additional PM_{10} that would be released by the proposed project would be a very minor contribution to the PM_{10} pollution in the Imperial County air basin and the project-related emissions would occur away from population centers, allowing most of the particulates to settle before they are breathed by County residents. Therefore, health effects and associated economic losses would not be significant.

The Applicant chose the proposed landfill site because it is adjacent to the Mesquite Mine, allowing the Applicant to reduce costs by using existing infrastructure, overburden/heap leach piles, and a previously disturbed site, not because "the waste industry" targeted a county for the reasons stated by the commentor. Please see responses to Comment Nos. 185 and 203. Bullard's statements are noted.

669 Why does Appendix H:1 "assumptions" set such a low target for local employment as "at least 50 percent of the labor necessary to construct and operate the proposed landfill"? It anticipated that at least 50% of the projected employees currently live in Imperial County and are unemployed or underemployed and additionally that after they are hired, 50% of the out-of-county employees would commute or move to Imperial County (Appendix H:25). However, text of the DEIS raises serious questions about the nature of the workforce and workforce risks.

A review of the data in Imperial County Demographics Packet (complied by Imperial County Community Economic Development) reveals that 27.7% of males over 16 years old did not work in 1989 (p. 12). Another table (no date) in that packet revealed that 59% of males over 16 years old were employed; 30.8% were "not in labor force". 16,854 residents over 5 years old spoke only Spanish at home, and 43,561 spoke Spanish, but were not linguistically isolated. (Exhibit S.) (See exhibits P through V for Imperial County demographics information. There may be some confusion in reviewing such demographic data because the category "hispanic origin" is linguistic, and other categories might be described by race.)

One of the assumptions of the DEIS is that: "Immigrating workers would have demographic characteristics similar to the demographic characteristics for the State of California." (DEIS 4-152.) What percent of local hires is expected to come from the 71% of the Imperial County population that are people of color? Would the jobs be primarily as management or non-management employees - skilled or unskilled workers? Contrast this to the 42.8% of out-of-county employees (immigrating) which are expected to be people of color. Are the immigrating employees expected to be management or non-management employees - skilled or unskilled workers? If the "average wage for full-time landfill workers" is expected to be approximately $30,000, what are the anticipated wages/salaries for management and for different job classifications? Is it anticipated that there might be any disparity between wages/salaries that would exhibit a racial or linguistic bias in employment and compensation and health risk exposure? How many employees would be required for closure and post-closure care, essentially in perpetuity for as long as the LF would remain a potential hazard to groundwater?

In 1990 in Imperial County 23.8% of families are classified as living in poverty by federal standards as compared to 12.5% for the State of California. (Imperial County GPU Overview: 9.) What percentage of blacks, Mexican Americans, and Asians have incomes below $20,000, over $50,000, or over $75,000/year compared to whites in each income category? (See demographic data in Exhibits R and T for answers.)

670 Even with "the majority of the project related effects in Imperial County" (DEIS 3-132), the low anticipated employment opportunities for Imperial County residents further reinforces the concerns addressed in Bullard's book. Is the estimated 50% of out-

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 669

The 50 percent assumption for the hiring of local residents is not a "low target," but a conservative assumption to avoid overstating the economic benefits of the proposed project. Approximately 66 percent of the mine workforce came from existing Imperial County residents (Mesquite Mine Ninth Annual Report of Mining Activities, March 1994, available for public review during normal business hours at the Imperial County Planning Department, 939 Main Street, El Centro, California) It is expected that people of color would fill a variety of jobs. The requested detailed information on jobs by demographic category is speculative and not required for an adequate NEPA/CEQA review.

Response to Comment No. 670

Please see response to Comment No. 669. For the purposes of determining demographic and public service impacts, it was assumed that all landfill employees that relocate to work at the proposed landfill would move to Imperial County. This assumption resulted in larger population inmigration impacts than may actually occur. Therefore, demands for public services described in this EIS/EIR are likely overstated. Nevertheless, impacts would not be significant. For calendar year 1993, six percent of the mine workforce came from Blythe, 13 percent came from Yuma, 10 percent came from out-of-state (non Yuma), and 5 percent were company transfers from other areas. These figures likely would vary for a landfill operation, but are regarded as representative.

of-County employees anticipated to move to Imperial County as a result of employment at the proposed site (Appendix H:29) based on experiences at the Mesquite Mine? If not, what is the source of that estimate? How many mine employees live in Yuma or Riverside Counties now?

671 The addition of one, possibly two waste mega-landfills in Imperial County is likely to spread the reputation of Imperial County as a "dumping grounds" for California's problems. The reputation as a dumping grounds creates a negative image and is unlikely to enhance the ability of the County to attract companies to expand the economic base of the County. What are the anticipated economic benefits to Yuma, Arizona, where many current mine employees and the AOI manager live? What, if any, of the liabilities or adverse impacts of the proposed LF project would be felt in Yuma?

672 Why are some communities or counties chosen to get "dumped on" while others escape? Why are health and environmental regulations vigorously enforced in some communities and counties and not in others? Why are some workers protected from environmental threats while others are not? How would a previous work history of exposure to toxic substances on the job, or living an a neighborhood frequently exposed to drift from spraying agricultural chemicals as authorized by Imperial County's Right to Farm Ordinance change the potential health risks of employment at the working face of the proposed LF?

673 If the Mesquite Mine's 370 workers lose their jobs after the Mine ceases operation in 10 to 15 years, would not that more than offset any gains in employment of 268 persons at the proposed landfill site? If not, why not? How many Mesquite Mine employees are expected to leave mine employment to work at the proposed LF? Why does the proposed Mesquite 20,000 tpd LF estimate it would hire 268 employees DEIS Table 4-27) while the proposed Eagle Mountain Project, also a 20,000 tpd LF, would hire 163 employees (DEIS 4-201)?

674 Why wasn't DEIS Table 3-20 updated to reflect the 1993 information in the text? Why is the civilian labor force of Imperial County expected to decline by approximately 5,300 from 1993 to 1994 (DEIS 3-132)? Is the decline expected to continue or be reversed in coming years? What are the economic and social implications of a 5,300 anticipated decline in the labor force during a period when the population increased by 6,400 (according to data in the County's Demographic Packet, Exhibit U)?

"Host fees" as economic enticements

675 The suggestion of a "host fee" (DEIS 4-156) is intended to convince residents and decision makers to consider approving a project which would pose increased hazards to a portion of the population and degrade the image of the County. This in turn, could result in further depression of the economy and continued high unemployment rates. The $1/ton fee suggested by DEIS 4-156 is equivalent to the "Environmental Mitigation Trust Fund" established

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 671

Please see response to Comment No. 24. Trying to predict economic benefits to any specific community would be speculative. It is not expected that the proposed project would have any significant adverse effects on Yuma, Arizona.

Response to Comment No. 672

Please see response to Comment No. 668, last paragraph. It is not anticipated that the cumulative effects of the use of agricultural chemicals and worker exposure to LFG would be a significant health and safety issue.

Response to Comment No. 673

One of the County's objectives is to "offset expected socioeconomic losses from future closure of the Mesquite Mine." It is anticipated that some Mesquite Mine workers could leave the mine and work at the proposed Mesquite Regional Landfill. It is not certain what percentage of mine workers would be employed at the proposed landfill. However, the provision of 268 jobs at the proposed landfill would help to balance the loss of jobs from the Mesquite Mine. We do not know why the applicant for the proposed Eagle Mountain Regional Landfill identified only 163 employees.

Response to Comment No. 674

Draft EIS/EIR Table 3-20 provided a consistent set of employment and labor force data for one year, 1991. While more recent civilian labor force data were available at the time the Draft EIS/EIR was published, more recent wage and salary employment data were not available. Therefore, 1991 was the most current year that both civilian labor force and wage and salary employment data were available. Both the civilian labor force and wage and salary employment data were used to determine the average number of jobs per worker, which was used in Chapter 4 to determine project-related impacts. Had 1993 civilian labor force and 1991 wage and salary employment been mixed on the same table, the reader would not have had the information that was used to derive the jobs per worker estimate.

Response to Comment No. 674 (Cont'd)

Contrary to the earlier forecast by the State of California Employment Development Department, from 1991 to 1994 the Civilian Labor Force in Imperial County grew by 15,365 which is an annual average growth rate of over nine percent. The 1994 unemployment rate for Imperial County was 22.3 percent, or one percentage point higher than the unemployment rate in 1991. As with much of the rest of the country, labor force participation rates have declined in the face of higher unemployment (i.e., people tire of looking for a job and drop out of the labor force). It is likely that labor force participation rates will fluctuate both up and down during the 100-year life of the proposed landfill. The effect of this is typically lower household earnings and/or lower household formation rates.

Response to Comment No. 675

Comment Noted.

for the Eagle Mountain Project (MRC Project Overview). While this might sound like a lot of money today, how can one predict the significance of a $1/tom amount 100 years from now? To put the issue in perspective, originally $2.50/acre to acquire public lands for mining may have seemed like a large sum when the Mining Law was enacted in 1872, but by 1972 and now 1994, this sum seems like woefully inadequate compensation for public lands with valuable mineral resources - - or an outrageous public give-away.

Bullard (1993:12-13, 23) takes a more uncomplimentary view of host fees and refers to them as forms of "economic blackmail."

As discussed elsewhere, a MSWLF is really a hazardous waste project because of the inability to remove all materials, including common household materials which become hazardous waste from the waste stream to be transported and landfilled.

> In recent years, a school of thought has emerged which raises the ideas of compensating communities which agree to host hazardous waste facilities (O'Hare et al. 1983; Kunreuther 1985). This theory argues that economic incentives can be offered to local residents so that the perceived benefits outweigh the perceived risks (Portney 1985). To advance such a theory in the absence of the consideration of the racial and socio-economic characteristics of host communities and existing forms of institutionalized racism leaves considerable room for potential discrimination and racist exploitation. (C. Lee 1993:44.)

We see "host fees" as a "Faustian Bargain" and believe that governmental entities should not be seduced into accepting a problematic project such as a mega-landfill as an avenue for employment and economic development.

A review of Appendix H (Socioeconomics), DEIS discussion, and our Exhibits P through V, reveal why Imperial County is perceived as being susceptible to such economic enticements.

> Earnings per job in Imperial County are lower than earnings per job in the State of California. .... On average, a wage and salary job in Imperial County pays 72 percent of the state average for all wage and salary jobs and 77 percent of the average wage for non-agricultural wage and salary jobs. (Appendix H:34.)

And Imperial County's unemployment ranges from 21% to approaching 30%, "far above the state average of 7.5 percent" (Appendix H:29). For additional economic information based on Imperial County demographics, please see Exhibits P through V.

Financial Assurance information is missing

676 Why aren't the details of the financial assurance provisions for closure, post closure maintenance, corrective actions, and perpetual care included in the DEIS for public review and comment at this time? Why hasn't the applicant revealed which of the 11 methods of providing financial assurance is intended so the public can comment? See comments elsewhere in this response. What is the standard liability insurance coverage carried by partners and

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 676

The liability insurance coverage has not yet been determined. Please see responses to Comment Nos. 113, 193, 201, 432, 473, and 476.

applicable to all aspects of the project including construction and rail haul? Will an up-front trust fund sufficient to cover all costs of closure, maintenance, post-closure maintenance and corrective actions be set aside prior to start up to ensure funds in the event of premature closure of the proposed LF project? If not, what mechanisms would adequately accomplish the same purpose?

Sec. 4.7.3.7 SOCIOECONOMICS CUMULATIVE IMPACTS

677 Discussion of cumulative impacts appears to contradict the assumption that up to 50% of the workers at the proposed project would be from Imperial County when it states that "some workers (less than 150) [of the 268 would move] to Imperial County to accept a landfill-related job." (DEIS 4-215.) This figure suggests that only about 40% of the jobs would go to current Imperial County residents. If only 24% of the employees of the state prison at Calipatria are local hires, why is it assumed that 40 % or 50% of employees at the proposed LF project would be local hires?

678 Why does Sec. 4.7.3.7 state that the proposed project would create 286 new direct and 65 secondary jobs (DEIS 4-216) when table 4-27 lists only 268 new direct jobs (DEIS 4-154)? How would the proposed LF project provide employment opportunities for mine workers if the proposed LF project reaches its peak capacity at Year 7 and the mine continues to operate for another 10 to 15 years with operations continuing at present levels until 1997?

679 Role of the consultant:

"Ironically, the art of justifying or "selling" communities on development projects that are not in their best interests has become a new business specialty for consultants." (Hamilton 1993:70.)

Sec. 3.1.14, 4.1.14 PUBLIC SERVICES & UTILITIES, Affected environment and impacts

680 Why does Sec. 4.1.14.2 indicate an average household size of 2.79 persons (DEIS 4-159) and discussion of socioeconomics use an average household size for Imperial County of 3.26 (DEIS 3-137)? Which is correct?

681 What is the location of the "approved disposal facility" to which hazardous wastes would be delivered from the proposed LF site (DEIS 4-160)?

Sec. 4.1.15 ENERGY CONSUMPTION/CONSERVATION IMPACTS

682 The 23% moisture content of MSW residue is incorrect for the period after implementation of AB 939 according to Appendix F Table 6.2 as discussed earlier. Is the lower moisture percentage used because it is assumed that full implementation of AB 939 is unlikely to occur? The 53 kW-hours of electricity/ton (DEIS 4-164) needs to be corrected to reflect the information in Appendix F.

683 Would trains need to be refueled for the trip back to Los Angeles? If so, would fuel be stored on site, or where? With what frequency would additional fuel need to be imported into Imperial County to meet those needs?

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 677

Table 4-27 of this EIS/EIR presents the conservative estimate of the number of workers that would be hired locally. "Less than 150" was obtained by rounding one-half of 268 (i.e., 134) to the nearest 50. Please see response to Comment No. 669.

Many of the landfill jobs associated with large scale material handling, operation of an environmentally sound containment and monitoring system, and ordinary business administration are similar to those same skills required at the Mesquite Mine. Therefore, the employment experience at the mine more closely resembles that expected for the landfill, than civil service employment at a prison, as suggested by the comment. The EIS/EIR used the figure of 50% to more conservatively evaluate socioeconomic impacts.

Response to Comment No. 678

Table 4-27 shows 268 direct and 65 secondary workers hired as a result of the proposed project. It is anticipated that the mine would begin reducing employment before it closes.

Response to Comment No. 679

Comment noted.

Response to Comment No. 680

It is assumed that inmigrating workers would have demographic characteristics of the state as a whole (2.79 persons per household) rather than Imperial County demographic characteristics (3.26 persons per household). Please see Final EIS/EIR Table 3-24.

Response to Comment No. 681

The specific disposal facility or facilities have not been identified at this time. However, all laws and regulations would be followed in accordance with disposal of any hazardous wastes that are identified at the proposed Mesquite Regional Landfill. Currently, one Class I landfill is operated in Imperial County.

Response to Comment No. 682

As discussed in responses to Comment Nos. 467 and 610, the requirements of AB 939 were fulfilled. The resulting 23 percent moisture content (by weight) only applies to the period 1996 through 1999, and the moisture content becomes 27 percent for years thereafter. The proper moisture contents were used in the Draft EIS/EIR calculations of LFG generation. The resulting electric generation rate would rise to a maximum of 80 kilowatt hours per ton of "as received" MSW residue, and 160 kilowatt hours per ton of "conditioned" MSW residue. This has been corrected in this Final EIS/EIR.

Response to Comment No. 683

The common carrier trains that would deliver the MSW residue to the proposed Mesquite Regional Landfill would be refueled as needed by the SP Railroad at existing fueling stations located along or near the proposed rail-haul route at existing railroad yards. The proposed project would not be responsible for providing fuel to SP Railroad.

684 Fuel consumption for rail-haul to the proposed project site appears excessive and has adverse air quality impacts which are not mitigable. The No Action Alternative (with increased source reduction, recycling, reuse, composting and take back, with residue landfilling near the source of generation) is the only effective way to mitigate such impacts: simply avoid them in the first place..

Sec. 4.7 CUMULATIVE IMPACTS

685 DEIS simply asserts that most impacts would not be significant impacts of a cumulative nature on resources such as water and biological resources and consequently fails to provide the kind of discussion required by CEQA Guidelines. We disagree with the conclusions of the DEIS discussion of Cumulative Impacts of the proposed project in concert with impacts of other projects in the area. (Also see discussion of legal issues related to cumulative impacts.)

CEQA Guidelines requirements for discussion of Cumulative Impacts include:

15130. Cumulative Impacts

(a) Cumulative impacts shall be discussed when they are significant.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The following are necessary elements to an adequate discussion of cumulative impacts:

(1) Either:

(A) A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions. ....

(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where the information is available, and

(3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project.

(CEQA Guidelines 15130.)

Why doesn't cumulative impacts discussion list (DEIS 4-200) include the Suburban Sanitation of California recycling facility started in Holtville (DEIS 4-215) or the "New Town" in the Felicity Specific Plan Area in SE Imperial County as described in the Imperial County General Plan Update and impacts on groundwater

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 684

Comment noted.

Response to Comment No. 685

This EIS/EIR adequately addresses cumulative impacts. Specific responses to the specific comments follow.

The discussion of the environmental setting of the project already reflects existing projects affecting ground water usage and recharge. Thus, existing data takes into account the effect of existing ground water pumping for agricultural purposes, as well as existing facilities that reduce the amount of ground water recharge (e.g., the partial lining of the Coachella Canal). (Final EIS/EIR, pp. 3-26 to 3-45.) See also responses to Comment Nos. 508 and 509.

The commentor incorrectly states that the All-American Canal has been lined. In fact, the lining of this canal has been proposed. The Draft EIS/EIR's analysis of cumulative impacts discusses this proposed project. (Draft EIS/EIR, p. 4-207.) Please also see response to Comment No. 484.

Cumulative impacts to biological resources would not be significant. Please see responses to Comment Nos. 31, 42, 318, 353, 567, and 587.

The commentor's disagreement with the conclusions of this EIS/EIR regarding cumulative impacts is noted.

The analysis of cumulative impacts does not discuss the Suburban Sanitation of California recycling facility in Holtville. Holtville is not located within the Amos/Ogilby ground water basin. (Final EIS/EIR, p. 3-28.) Thus, no cumulative impacts to ground water will occur in conjunction with this project. Similarly, the Suburban Sanitation facility will not affect desert tortoise habitat, will not involve the use of the transportation facilities to be utilized by the proposed Mesquite Regional Landfill, and will not result in cumulative noise, air quality and environmental health and safety impacts.

Response to Comment No. 685 (Cont'd)

No permit application has been filed with the County for the future development of Felicity. It is not possible to speculate as to what a future development a future permit application would include; therefore, consideration of Felicity in this EIS/EIR would be speculative. Please see response to Comment No. 485.

resources from pumping in the Mexican portion of the basin for agricultural purposes and past reductions of recharge because of lining of All American and Coachella Canals.?

686 What is the probability that wastes will be imported from outside Southern California so that all three (DEIS 4-205) (four including Rail Cycle) would operate at 20,000 tpd capacities? How much MSW residue is anticipated to arrive from out of the state of California?

Sec. 4.7.3.1 CUMULATIVE IMPACTS ON GROUNDWATER RESOURCES

687 DEIS cumulative impacts discussion underestimates the changing availability of groundwater resources in the Amos-Ogilby basin because it fails to include a complete accounting of major withdrawals and losses to recharge from past projects, effects of other current projects, and effects of probable future projects (CEQA Guidelines Sec. 15065(c)). DEIS discussion of cumulative impacts of the various projects is inadequate because it fails to discuss the decline in groundwater levels which would result from extractions for the proposed project in addition to the reduction in recharge of 67,000 AF/Y resulting from lining of the All American Canal (DEIS 4-209), loss of recharge because of past lining of the Coachella and All American Canals (Appendix B 5-2), and probable increasing groundwater withdrawals for agricultural purposes in Mexico at present (Appendix B 5-4) and over the 100 active life of the proposed LF project.

How would water levels and water quality potentially change, particularly in the vicinity of the Gold Fields Well Field as a result of the proposed withdrawals and loss of seepage waters? How would declining water tables impact desert trees such as ironwood and mesquite which has roots which can reach more than 165 feet below the surface for water? Impacts to deep-rooted desert vegetation could affect the quality and quantity of wildlife habitat.

The discussion of cumulative impacts of the combined projects also fails to consider the impacts and implications of a groundwater recharge and withdrawal project overlying basins of the southeastern part of Imperial County and development of the New Town of Felicity. The potential "New Town" of Felicity "encompasses approximately 8,960 acres in SE Imperial County and is included as the "Felicity Specific Plan Area" in Imperial County's General Plan Update Land Use Element adopted 11/93. (LUE:13-15.)

Additionally, DEIS discussion of cumulative impacts on groundwater resources is also inadequate because it fails to discuss the potential cumulative impacts of the "reasonably anticipated future" part of the proposed LF project repeatedly referenced in the DEIS and Appendix F as "enhanced LFG generation". Air Quality impacts discussion included calculations and discussion of the enhanced LFG generation by the addition of water to increase the moisture content of MSW residue to 40%. However, the DEIS fails to include any adequate discussion of the potential environmental impacts of LFG enhancement on increased leachate generation

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 686

Please see response to Comment No. 200, last paragraph.

Response to Comment No. 687

The drawdown analysis in the Draft EIS/EIR assumes no recharge of the Amos Ogilby Basin. Therefore, cumulative impacts would not be significant as described in Section 4.7.3.1.

The area where water is being withdrawn for Mexican agricultural use is related primarily to the East Mesa Basin (see Figure 2 of Appendix B.1 to the Draft EIS/EIR). If the area of the basin in Mexico is added to the 860 square miles of the combined basins discussed above, the average aquifer decrease would be less than that identified for the proposed project. Therefore, the existing mine well field would not be significantly affected. Future withdrawals of ground water for agricultural or potable use in Mexico cannot be determined at this time. Therefore, any discussion of impacts from such future use of ground water would be speculative. If the Amos Ogilby and East Mesa Basins are not connected, conditions in the Mexico area would not have any effect on the existing mine well field.

The depth of ground water at the existing mine well field is about 460 feet (Table 3-4 of the Draft EIS/EIR), far below the depth that root penetration would be expected. Therefore, water level fluctuations at the well field would not be expected to affect vegetation conditions.

Please see responses to Comment Nos. 98, 484, 485, 509, and 685. Full-scale LFG enhancement is not proposed at this time. Based on the results of the proposed pilot program, full-scale LFG enhancement may be proposed in the future. Because the details of how full-scale LFG enhancement may be implemented are not known, it would be speculative to try and determine ground water impacts. Therefore, future environmental analysis would be required before full-scale LFG enhancement can be implemented at the proposed landfill site. .

and increased potential for groundwater contamination by leachate and/or LFG and VOC escaping through point source leaks in the liner system and migrating downward through the vadose zone to groundwater. CEQA Guidelines 15130 requires discussion of potential cumulative impacts of this aspect of the proposed project on groundwater resources as part of the cumulative impacts discussion, because the impacts of this portion of the proposed project on air quality is included elsewhere in Sec.4.1.8.4 and 4.1.8.5 of the DEIS.

688 If additional lining of the All American Canal means seepage is reduced and recharge declines from 67,000 AF/Y to 15,000 AF/Y (DEIS 4-209), cumulative impacts of existing pumpage and proposed project pumpage of 1000 to 4000 AF/Y (DEIS 4-5) cannot be considered as insignificant cumulative impacts because DEIS discussions have not addressed the cumulative impacts in the manner required by CEQA or based on adequate or even reasonably accurate information presented elsewhere in the DEIS and its appendices.

Sec. 4.7.3.2 CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

689 DEIS cumulative impacts discussion re biological resources does not meet the minimum requirements of CEQA. DEIS (p. 4-210) discussion of cumulative impacts on sensitive biological resources is inadequate because it fails to address the full nature of impacts of the proposed project related to increased potential for predation, habitat fragmentation, habitat quality, habitat loss, noise, vibration and night lighting, and social disruption in addition to the combined impacts of the Eagle Mountain RLF, Chocolate Mountain RLF, American Girl Mining Complex, existing and future recreational impacts on wildlife, and the proposed rail spur ROW which are all located within desert tortoise habitat and habitat for other wildlife.

690 Based on criteria for determining significance of impacts to wildlife (DEIS 4-18), because so much habitat would be impacted, cumulative impacts to wildlife would be significant and not fully mitigable with respect to the desert tortoise and small terrestrial animals. Many of these impacts and the not-fully mitigable nature of the impacts were addressed elsewhere herein and in Appendix D.

691 DEIS Sec. 4.7.3.2 is further inadequate because it fails to consider the cumulative impacts on wildlife of the proposed project in addition to the adjacent Mesquite Mine impacts, new rail spur ROW, adjacent aerial gunnery range, recreational activities and other projects identified in DEIS 4-200 on wildlife. DEIS cumulative impacts discussion of wildlife impacts does not meet the requirements of CEQA Guidelines Sec. 15130. Accordingly, the Revised Draft EIS should include a discussion of cumulative impacts of all aspects of the proposed project in addition to impacts of other nearby projects on wildlife consistent with the requirements of CEQA and NEPA rather than an attempt to discuss impacts of piecemealed portions of the proposed project. Further, the list suggested as mitigation measures (DEIS 4-210) is misleading because details of all mitigation measures and plans have not been provided for public review.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 688

Please see responses to Comment Nos. 98, 484, 485, 509. 685 and 687.

Response to Comment No. 689

All of these impacts were considered in determining the significance of cumulative biological resource impacts as described in Section 4.7.3.2 of this EIS/EIR. The direct and indirect impacts at the proposed landfill site and rail spur right-of-way would be mitigated to below a level of significance by the off-site compensation parcels. Assuming each of the other projects provide mitigation in compliance with BLM's compensation equation, cumulative impacts would not be significant. By providing for the acquisition and management of large contiguous parcels of designated critical habitat for the desert tortoise, the likelihood of the survival of the desert tortoise and other resident and migrant species associated with the Colorado Desert would be enhanced. Please see responses to Comment Nos. 31, 42, 164, 318, 339, 348, 353, 529, 567, and 587.

Response to Comment No. 690

The commentor's opinion that cumulative biological impacts would be significant is noted. Contrary to this opinion, the proposed project would not substantially diminish habitat for a plant or animal species; substantially affect a threatened, endangered, or category species, special interest species, or its habitat; or interfere substantially with the movement of a resident or migratory species. This is described in this EIS/EIR and in the numerous responses to the commentor's comments. Therefore impacts to biological resources, including cumulative impacts, would not be significant with the implementation of the mitigation measures identified in this EIS/EIR.

Response to Comment No. 691

The impacts of the existing disturbance associated with the Mesquite Mine, aerial gunnery range, and existing recreational activities were considered in preparing this EIS/EIR. The commentor's position appears to be that because of all of these activities in the vicinity of the proposed landfill site, impacts must be significant, regardless of the context or intensity of the impact. While local populations have been displaced by

Response to Comment 691 (Cont'd)

existing activities and would be displaced by the proposed project, these losses would not substantially reduce the number of individuals of any resident or migrant species. This is a very small portion (intensity) of the low quality habitat (context) in the Colorado Desert. Project-related impacts would be mitigated by assisting BLM to assemble large contiguous blocks of high quality habitat (context) to allow for the successful management of wildlife and plant species. Please see responses to Comment Nos. 31, 42, 164, 172, 318, 339, 348, 353, 529, 567, 587, and 689.

Sec. 4.7.3.3 CUMULATIVE IMPACTS ON TRANSPORTATION

692 If all three proposed MSWLFs were to operate at capacity using 58 trips/day of the 65 trip/day capacity on the SP Main Line (DEIS 4-211), would that action necessitate the construction of a second SP track? DEIS cumulative impacts discussion is inadequate because it fails to discuss this cumulative impact and ignores anticipated increases in passenger rail traffic and NAFTA induced rail use. What will be the cumulative impacts of the proposed project in addition to the rail-haul from the El Centro Intermodal facility which would result in the transfer of up to 15,000 truck loads of agricultural materials from Imperial Valley to the LA area along the SP Main Line (DEIS 40208)? The agricultural rail-haul transport was supposed to have begun in 1/94. Did it? Additionally, DEIS provides no indication of potential increases in rail transport of goods and materials to and from Mexicali along the SP Main Line. Nor does it discuss the cumulative impacts of the truck haul from transfer stations/MRFs to the LATC intermodal facility.

693 Sec. 4.7.3.4 CUMULATIVE IMPACTS OF NOISE on wildlife are not even mentioned, therefor DEIS discussion of cumulative impacts of the project on noise levels and incremental cumulative impacts of noise on wildlife including desert tortoises are nonexistent.

Sec. 4.7.3.5 CUMULATIVE IMPACTS ON AIR QUALITY

694 Since the net increase in PM_{10} emissions is considered a cumulatively significant effect of the proposed project (DEIS 4-212), isn't it logical that the cumulative impacts of a second and/or third regional landfill with a 20,000 tpd capacity would further increase those significant cumulative impacts?

DEIS discussion of cumulative impacts on air quality is inadequate because it fails to consider the extent to which air quality in Imperial County will be impacted by (a) additional population and industrial growth, NAFTA induced or otherwise, in Mexicali and the Mexicali Valley; (b) increased air pollution travelling over the mountains from both the Los Angeles and San Diego urban areas with future growth; (c) increased development within Imperial County during the next 100 years and as projected by the County General Plan Update, especially along the eastern side of Salton Sea and along the SP rail haul route; and (d) agricultural products rail-haul transport to Los Angeles area.

Additionally, DEIS cumulative impacts is inadequate because it fails to include any discussion of cumulative impacts of the anticipated or hoped for enhanced LFG generation component of the proposed project described in the Environmental Impacts discussion on Air Quality and included in Appendix F. Such discussion cannot be piecemealed off to some future time.

To a very large extent, the DEIS cumulative impacts discussion of air quality appears to suffer from biases similar to those of the 1991 World Bank memorandum which described rural areas as having "under-polluted areas... vastly UNDER-polluted; [where] their air quality is probably vastly inefficient compared to Los Angeles". (Bullard 1993:20.)

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 692

The cumulative impact discussion for transportation considers proposed projects that could have an impact on the rail haul route. The only other regional landfills that anticipate rail haul and that would use the same Southern Pacific rail haul route are the Eagle Mountain and Chocolate Mountain landfills. Consideration for potential rail traffic from these projects was made in the cumulative transportation analysis. The analysis concluded that impacts would not be significant based on current operating levels.

Please see response to Comment No. 42 concerning potential passenger rail traffic on the rail haul route. Further, NAFTA-induced rail use is only speculative at this time, and cannot be considered in an analysis such as this Draft EIS/EIR. There is no evidence or basis for speculation of increased transport of goods and materials to and from Mexicali along the SP mainline. Therefore, this was not considered in the cumulative impact analysis. Truck haul from transfer stations/MRFs to the LATC intermodal facility is not considered, because the locations of these facilities is speculative at this time. Kuhn Farms began operating their intermodal facility earlier this year. At peak operations, the facility would generate less than two trains per week. This is within the normal fluctuation on the SP Main Line and cumulative impacts would not be significant.

Response to Comment No. 693

Section 4.1.3 of the Draft EIS/EIR analyzes the potential effect of project-related noise on wildlife and particularly to the desert tortoise. The analysis considers existing noise in the area (e.g., military aircraft, gravel withdrawal operators). The discussion determined that potential impacts due to noise on the wildlife, and particularly the desert tortoise, would not be significant.

Response to Comment No. 694

Based on the analysis presented in this Final EIS/EIR, it is likely that each regional landfill located in an air basin that does not meet federal and state PM_{10} AAQS would create cumulatively significant PM_{10} impacts in the immediate vicinity of each respective landfill. However, given

Response to Comment No. 694 (Cont'd)

that each of these cumulative landfill projects are at least 20 miles apart, the emissions could not add together to be considered as cumulative impacts.

The Draft EIS/EIR states in the first sentence of Section 4.7.3.5 (page 4-211) that cumulative air quality impacts would occur in both air basins, SOCAB and SEDAB. The cumulative impacts also occur in the jurisdiction of both agencies, SCAQMD and ICAPCD. The Draft EIS/EIR discusses cumulative impacts of three regional landfills, two mines, Calexico East Border (Port of Entry) Station, and State Route 7, all of which are projects that can be reasonably well defined. The comment mentions Mexicali growth, agricultural product hauling, and other activities that cannot be well defined for the purpose of cumulative impact analysis at this time. Moreover, transport of pollutants to Imperial County from Los Angeles and San Diego, and some of the other activities, may actually decrease as a result of applying the air quality management plans of these jurisdictions.

Finally, it should be noted that the air quality impacts of emissions with complete MSW residue conditioning program were used to analyze for cumulative significance.

Please see response to Comment No. 21. The last paragraph of this comment is noted.

CUMULATIVE IMPACTS ON RECREATION

695 DEIS is inadequate because it fails to include any discussion of adverse incremental cumulative impacts of proposed LF project on the quality of recreational activities, including non-OHV activities in the area. Demands for recreational use of desert lands are increasing and are impacting wildlife and habitat in areas other than the Algodones Dunes. How will the increase in nighttime light and glare, wind blown litter, degraded aesthetics, and noise impact the quality of recreational opportunities for those using the area, especially as the landfill becomes the highest topographic feature in the immediate area? How would these impacts be mitigated? Could they be mitigated?

Sec. 4.7.3.6 CUMULATIVE IMPACTS OF PROJECT ON ENVIRONMENTAL HEALTH AND PUBLIC SAFETY

696 DEIS cumulative impacts discussion is inadequate because it makes no reference at all to the potential incremental cumulative health impacts of a work career of employment at the active working face of the proposed LF and the potential for cumulative synergistic impacts of exposures to toxics and more elevated PM_{10} concentrations in combination with previous and/or simultaneous exposures to chemicals and PM_{10}s associated with living and travelling through Imperial County. (See discussions elsewhere herein.)

Sec. 5.1 GROWTH INDUCEMENT

697 Why does this section suggest that "it is anticipated that all landfill employees could be recruited from the existing labor force in Imperial County (DEIS 5-1) when discussion of Socioeconomics assumes approximately 50% of the direct workers at the proposed LF project site would be Imperial County residents (DEIS Table 4-27)?

698 Isn't it likely that if SOCAB is able to eliminate the need for siting of new or expansion of existing landfills, that action will result in the availability and desirability of additional lands within SOCAB for additional residential, commercial, and industrial growth within SOCAB? By exporting its waste problems and locally undesirable land uses (LULUs) to Imperial County, SOCAB land resources would be available for more desirable development. Further, as Imperial County's reputation as a "dumping grounds" for Southern California's undesirable wastes and a place with the welcome mat out for LULUs becomes better known, this negative reputation may well steer other clean development away from Imperial County.

Sec. 5.2 IRREVERSIBLE AND IRRETRIEVABLE RESOURCE COMMITMENTS

699 DEIS 5-1 acknowledges that the use of land for a LF project would essentially dictate that use in perpetuity. What "certain recreational activities" (DEIS 5-1) could occur on the surface of the LF after closure without risking damage to the underlying cover FML liner and the risk of future moisture infiltration? We believe recreational activities are incompatible with the need for perpetual care and monitoring for the site of the proposed LF project.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 695

As described in Section 4.1.10 of the Draft EIS/EIR, recreational impacts would not be significant because the project site and immediately surrounding areas are only lightly used by recreationalists and because there is a vast amount of similar public land in the vicinity of the proposed site that provides more convenient access to the ISDRA or that is more remote from the ISDRA, depending on the recreator's desires. Litter impacts would not be significant as described in the response to Comment No. 653. Visual impacts cannot be mitigated. Noise and lighting impacts would not be significant.

Response to Comment No. 696

Please see response to Comment No. 619.

Response to Comment No. 697

The Growth Inducement Section states that given the unemployment rate in Imperial County, all workers could come from Imperial County. It does not say that they would come from Imperial County. In fact, it states that workers would come from Brawley, Palo Verde, or other more distant areas. "More distant areas" could include areas outside of Imperial County.

Response to Comment No. 698

Please see response to Comment No. 35. Comment noted.

Response to Comment No. 699

The future uses of the landfill have not been determined. Future environmental review would be required before the landfill site could be developed for uses not specifically addressed in this EIS/EIR.

Sec. 5.3 SHORT-TERM USE VS. LONG-TERM PRODUCTIVITY

700 Why isn't DEIS more honest in indicating that the landfill footprint would truly be a perpetual use of the land rather than for an "indefinite" period of time? How likely is it that the 150 ft., 4 to 5 mile long rail ROW would be removed after completion of the 100 year life of the proposed project? Wouldn't that use or land disturbance remain in perpetuity also? Where in the DEIS is this discussed and where are details of a habitat restoration plan for the rail ROW if it is removed?

How likely is it that tortoises would be successfully relocated to the LF site after closure as suggested by DEIS 5-2?

How could construction of a mega-landfill on an area as large as the proposed 4,245 acres be considered an "environmentally sensitive use of land resources" as suggested by DEIS 5-3 when it will remove from use by wildlife and vegetation much land and habitat and totally bury and destroy 2,290 acres under the LF footprint? How could productivity of public lands be enhanced by conducting such intensive operations on the land, excluding wildlife and destroying 2290 acres underneath the LF? Habitat lost is habitat lost. Isn't it true that the biggest beneficiaries of the proposed project are the corporate persona of the partners and project applicant?

ALTERNATIVE SITES AFFECTED ENVIRONMENT & IMPACTS

701 DEIS discussion of Alternatives is inadequate and does not meet the BLM requirements for Alternatives discussion for the reasons indicated below and elsewhere in our comments. The discussion of Alternatives to the proposed project appears to have been done in a vacuum as if there were no other proposals for mega landfills in Imperial County or elsewhere. Why?

702 Why was no consideration given to an Alternative of a decreased disposal rate on a smaller landfill footprint, or a combination of Alternatives I and II?

703 It is doubtful that any of the Applicant's Objectives could be economically met by Alternative III, the Alternate site because (a) the Mesquite Mine site could not be used, (b) overburden would have to be hauled to a site approximately 5 miles south of the existing Mesquite Mine, and (c) the existing power and water infrastructure could not be used.

3.2 NO ACTION ALTERNATIVE - AFFECTED ENVIRONMENT

704 DEIS discussion of the No Action Alternative is inadequate because it fails to give serious consideration to and emphasize the role that increased source reduction, recycling, materials reuse, take back projects, composition, setting up a materials bank for useable building materials, white goods, furniture, used products for home, office, and industry, art supplies, etc could play in reducing the waste stream if implemented to the maximum extent feasible. It also fail;s to give consideration to the probable necessity to change lifestyles and reduce consumption levels as all

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 700

The Draft EIS/EIR does recognize that the proposed use likely would be perpetual. The BLM-issued right-of-way for the rail spur would require the removal of the rail spur upon completion of landfilling activities. This would include post-closure maintenance if rail haul is required for such activities. Reclamation would include the removal of all man-made improvements. Please see response to Comment No. 151. .

Tortoises would be relocated as necessary to avoid impacts during the life of the proposed project. There is no plan to relocate tortoises to the landfill in the future.

The CIWMB has determined that landfilling of a certain portion of MSW will be required in the foreseeable future. The proposed landfill site provides natural protection of ground water resources; lies in close proximity to a well established railroad line and so would only require a four- to five-mile rail spur; is located away from urban areas; is comprised of the lowest quality habitat for the desert tortoise and has no other threatened, endangered, or category species associated with it; and would not require additional disturbance to provide infrastructure and cover material. For these reasons and others enumerated in this EIS/EIR and considering that almost all project-related impacts can be mitigated to below a level of significance as described in this EIS/EIR, the proposed project would be environmentally sensitive considering its magnitude.

This comment focuses on the productivity of the site, while ignoring the productivity of the desert as a whole. The proposed project, including the exchange of land and implementation of the mitigation measures described in this EIS/EIR would enhance the productivity of public lands overall. Please see responses to Comment Nos. 31, 42, 164, 318, 339, 348, 353, 529, 567, 587, and 689.

Response to Comment No. 701

Please see responses to Comment Nos. 271, 313, 314, and 164.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 702

As of the date of publication of this Final EIS/EIR, no project has been approved by BLM or the County. If the Proposed Action is selected by BLM and Imperial County, the specific reasons will be provided in the adopted Record of Decision (BLM) and Findings of Fact and Statement of Overriding Considerations (Imperial County). A combination of Alternative I and II could be implemented with the combined environmental effects described for each alternative. This alternative is therefore bracketed by the analysis presented in this EIS/EIR

Response to Comment No. 703

The Applicant's objectives quoted by this comment would not be met if Alternative III were implemented. Nevertheless, an alternative site is a reasonable alternative to the Proposed Action and is considered in this EIS/EIR.

Response to Comment No. 704

Please see responses to Comment Nos. 181 and 443. Small landfills located closer to the generating communities would not meet any of the County of Imperial's or the Applicant's objective. Also, they would not meet BLM's second objective. Therefore, small landfills located closer to the generating communities were eliminated from consideration as alternatives to the proposed Mesquite Regional Landfill. It is expected that generating communities would consider small landfills located closer to the generating communities during their decision of whether to send MSW residue to the proposed landfill or to an alternative landfill. Please see response to Comment No. 103.

resources become more scarce in the future. In addition, the DEIS fails to explore the idea that smaller landfills closer to the communities generating waste are an appropriate alternative when MSW residue to be landfilled is substantially reduced as compliance meets and exceeds the goals of AB 939.

4.2 NO ACTION ALTERNATIVE - ENVIRONMENTAL CONSEQUENCES

705 4.2.3 Biological resources discussion makes it sound like biological resources would benefit from construction of a landfill on desert tortoise habitat on the propose project site! We fail to understand that logic. How can this be explained?

706 4.2.8 Air Quality impacts discussion fails to give consideration to potential changes in waste stream needing to be landfilled if vigorous implementation of all waste reducing techniques are implemented to the maximum extent feasible as mentioned above. This section does, however, address the use of smaller landfills closer to sources of generation, but with inadequate detail.

3.3 ALTERNATIVE I - SMALLER LANDFILL FOOTPRINT - 1834 AC
Project area: 2240 Ac, but only 136 acres of federal lands involved.

707 4.3.9 Land Use Discussion relating to BLM losing "this opportunity to gain ownership of those [larger acreages of exchange properties]" (DEIS 4-172) suggests a BLM bias toward disposal of Federal lands for large projects such the proposed project rather than for a smaller landfill project on already disturbed lands on and adjacent to the existing Mesquite Mine and retention of federal lands. The sentiments express a bias toward disposal of Federal lands rather than resource management as mandated by the CDCA 1990 Plan. Does the sentiment (disappointment if the proposed project is not approved and land exchange is not implemented) reflect the management priorities of Department of Interior Secretary Babbitt and the Clinton administration, or is it reflective of the management style of the previous administration?

708 3.4 ALTERNATIVE II - REDUCED DAILY VOLUMES - 12,000 tpd 165 years on proposed project site of same acreage. Based on the Alternatives DEIS discussion, it seemed apparent that little consideration was given to this project.

3.5 ALTERNATIVE III - ALTERNATIVE MESQUITE LF SITE approx. 5 miles south of Mesquite Mine, footprint 2080 acres. Depth to groundwater is 80 ft. (DEIS 3-150.)

709 3.5.2 Existing water resources erroneously indicates that water quality data for the Amos-Ogilby basin is in Table 3-8 (DEIS 3-150).

710 However, a review of DEIS Table 3.7 suggests that the water quality in the Gold Fields well field is well within the SWRCB Resolution #88-63 for designation of the area as suitable or potentially suitable for municipal and domestic purposes.

711 3.5.3.1 Biological resources: vegetation The statement that: "No formal biological survey was performed for the alternative landfill site" (DEIS 3-151) suggests that this alternative was not

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 705

Please see responses to Comment Nos. 31, 42, 164, 318, 339, 348, 353, 529, 567, 587, 689 and 700.

Response to Comment No. 706

The Draft EIS/EIR analysis of the emissions and air quality impacts of the No Action Alternative took into account the change in composition of MSW residue because of the 25 and 50 percent recycling requirements of AB 939 for 1995 through 1999, and after 1999, respectively. The detailed analysis in Appendix F of the Draft EIS/EIR includes the full effect of these recycling requirements and accounts for differences in precipitation, distances to landfills, and modes of transport (truck versus train). It is much more reasonable to make assumptions about future truck haul distances to future landfills at unknown sites in the Los Angeles Basin than to try to assume the geological resources, water resources, biological resources, and land uses, for example, that would be impacted by future landfills at unknown sites. Please see the response to the Comment No 704.

Response to Comment No. 707

The BLM does not have a bias toward the disposal of federal lands for large projects rather than for small projects. This project represents an opportunity for BLM to obtain ownership of very valuable habitat and visual resources through a publicly benefiting exchange for the much lower value habitat and visual resources on-site. Consolidation of ownership of large contiguous blocks of land would facilitate implementation of the CDCA Plan of 1980, as amended. Please see responses to Comment Nos. 304 and 438.

Response to Comment No. 708

The potential for additional impacts from landfilling 8,000 tpd at a different site (although unquantified at this time), and the minimal reduction in proposed-project impacts that would occur under Alternative I would not justify limiting daily MSW disposal volumes to 12,000 tpd if 20,000 tpd are available to be disposed. Therefore, this is not BLM's preferred alternative.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 709

This typo has been corrected in this Final EIR to read "Table 3-7".

Response to Comment No. 710

As noted by this comment, the ground water from the Amos-Ogilby basin does not meet drinking water standards but this ground water does meet the limits established by the SWRCB Resolution No. 88-63 for designation of an area suitable or potentially suitable for municipal and domestic purposes.

Response to Comment No. 711

It was not necessary to conduct a formal biological survey for the purpose of determining impacts to biological resources at the alternative site because of the amount of biology work that has been conducted at the proposed site, the similarity between the proposed site and the alternative site, and BLM's experience in the vicinity of the proposed site.

seriously considered. Furthermore, the failure to perform a formal biological survey violates the BLM requirement that the EIS "[d]escribe the no-action alternative and all reasonable alternatives, including related monitoring alternatives, to the same level of detail as the proposed action." (DEIS 2-75.) The inclusion of only a few paragraphs on vegetation and reference that only a "walk through" was made and "no biological survey was completed for the alternative site" (DEIS 4-180) is not an adequate substitute for BLM's requirements for a detailed study.

712 3.5.3.2 **Wildlife** discussion is also inadequate for the same reason. The listing of plant and animal life (DEIS Tables 3-30, 3-31) in the vicinity of the Alternative III 5,200 acre site is a joke. Detailed studies should have been done and included in Appendix D. Why didn't the DEIS give the required serious consideration to this single alternative site considered?

What serious consideration can be ascribed to any alternative LF site which includes a portion of the Vista Well Tortoise Relocation Area which was "established by BLM to relocate desert tortoises found in the vicinity of the Mesquite Mine site" (DEIS 3-151)? To include as an Alternative site, a portion of a desert tortoise relocation program suggests the callous disregard for threatened species of wildlife, their habitat, and importance ascribed to compliance with mitigation measures related to threatened and endangered species by the project applicant and those approving this site for consideration. It is no wonder that the DEIS found no significant unmitigable impacts of the proposed project and insignificant cumulative impacts of the proposed project on the desert tortoise (DEIS 4-210)!

713 4.5.2.1 **Water resources impacts** text states that "special monitoring systems would be required for this alternative site to assure that any potential leak could be instantly identified and stopped before it moved quickly through the alluvial materials. (DEIS 4-179.) DEIS then fails to provide any information about those "special monitoring systems" in 4.5.2.2 "Mitigation Measures" as required by BLM policy (DEIS 2-75). Therefore DEIS discussion of Alternative III is inadequate and not in substantial compliance with BLM policies as spelled out in the DEIS or with CEQA requirements. Why does the DEIS fail to provide full disclosure of both the existing environment for biological resources and of mitigation measures related to water resources?

714 4.5.3.1 **Biological resources impacts:** Despite several paragraphs devoted to the failure to complete a biological resources inventory, no impacts can be ascertained other than to note that all vegetation and wildlife habitat would be destroyed beneath the landfill footprint and the portion of the Vista Well Tortoise Relocation Area in the Alternative site would be destroyed or seriously adversely impacted. How can the public be expected to evaluate the relative merits of Alternative III site with the proposed site adjacent to the Mesquite Mine, when so little information on the biological resources of the 5200 acres is available? How can the public be expected to comment on potential

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 712

Please see responses to Comment Nos. 551 and 711.

Response to Comment No. 713

Please see responses to Comment Nos. 411, 710, and 711. No special ground water monitoring would be required for the Alternative site. The requirements for CCR Article 5 would be followed for development of a ground water monitoring program. A system of upgradient and downgradient wells would be installed at a density similar to that presented for the proposed Mesquite Mine area site (i.e., one well along each perimeter side of the initial segment, and one new well for each perimeter segment). A minor disadvantage for the Alternative site is that an existing array of monitoring wells, such as those currently in use at the Mesquite Mine, would not be available for use in establishing background water quality.

Special vadose monitoring may be required, however, due to the more permeable vadose soils (i.e., alluvium) in the Alternative site area. An example of such special requirements could include an expanded vadose leachate monitoring layer, such as that proposed for the LFG enhancement pilot program (See EIS/EIR Figure 2-21). This expanded system could be required because a release from the landfill at the Alternative site would be expected to be capable of traveling more quickly to ground water through the more permeable alluvial soils. Specific vadose monitoring requirements would be determined by the RWQCB based on detailed geotechnical data for the site area.

Response to Comment No. 714

Please see responses to Comment Nos. 551 and 711. The alternative site is within Category III lowest quality habitat for the desert tortoise, although, tortoise surveys conducted since the Mesquite Mine tortoise relocations have indicated increased tortoise populations within the relocation area.

impacts to plant communities or sensitive species or to wildlife when so much information is missing? Without more information how can the DEIS reach the conclusion that: "Impacts to wildlife would not be significant."

Since a portion of the Vista Well Tortoise Relocation Area is within the NW portion of the Alternative LF site (DEIS 3-151), by what reasoning does the DEIS reach the conclusion that impacts of a landfill project at the site Alternative III "would be similar to those of the Proposed Action" (DEIS 4-180) where no tortoise relocation project exists?

715 4.5.10 Recreation impacts: It should be noted that the South Algodones Dunes (DEIS 4-184) has been deleted from wilderness consideration of the California Desert Protection Act.

3.6 ALTERNATIVE IV - LARGER PROJECT - 3100 acre footprint on 4322 acres; 30,000 tpd; 810 acres larger than the proposed project and at proposed site, but only for 90 years.

716 4.6.6 Transportation impacts: This section indicates the questionable economics and economic viability of proposals for 4 regional mega landfills in the desert, all intended to landfill MSW residue from Southern California, with emphasis on MSW residue from the SOCAB. "30,000 tpd [is] the maximum anticipated waste stream available for deposit in regional landfills from coastal communities over the next 20 years." (DEIS 4-195.) This figure is extremely important in assessing the economics of regional landfill proposals currently being reviewed by California desert counties, individually and in considering the economics if multiple projects are approved.

Needless to say both transportation and air quality impacts would increase with this alternative.

717 4.6.8 Air quality impacts: Questions about appropriateness and availability of both agricultural plant materials removed from burning and Mesquite Mine closure offsets are as with the Proposed Project, though concerns are greater because of the greater project related air quality impacts.

LEGAL ISSUES RELATED TO DRAFT EIS/EIR

DEIS/EIR IS INADEQUATE BECAUSE IT FAILS TO COMPLY WITH REQUIREMENTS FOR FULL DISCLOSURE OF INFORMATION

718 The DEIS/EIR is inadequate because it fails to provide full disclosure of all information including, but not limited to (a) technical information; (b) monitoring information; (c) siting criteria and impacts of essential components of proposed projects including essential transfer stations/MRFs; (d) proposed mitigation measures; (e) proposed mitigation plans; (f) views of expert biologists which question the feasibility or efficacy of proposed mitigation measures; (g) potential impacts associated with enhanced LFG generation; (h) availability of air quality offsets proposed

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 715

Comment noted.

Response to Comment No. 716

Comment noted. Given the difficulty in siting landfills, it is important that several sites be under consideration to allow for the objectives of state and other regional agencies described in Section 1.1.4.3 of this EIS/EIR to be met.

Response to Comment No. 717

As shown by the Draft EIS/EIR Tables 4-17 and 4-18, and the set of Figures 4-6, 4-7, 4-8, 4-9, 4-10 and 4-12, potential ERCs from the mine closing and agriculture exceed the Proposed Action emissions by a large enough margin to cover the needs of the larger landfill Alternative IV. It should be noted that air quality benefits developed in SOCAB relative to the No Action Alternative would be proportionally greater with Alternative IV.

Response to Comment No. 718

Under CEQA, an EIR must contain "a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure." (CEQA Guidelines, § 15151.)

The comment questions whether the Draft EIS/EIR meets this standard with respect to: (a) technical information, (b) monitoring information, (c) siting criteria and impacts from essential components, such as the transfer stations/MRFs, (d) proposed mitigation measures, (e) proposed mitigation plans, (f) views of expert biologists which question the feasibility or efficacy of proposed mitigation measures, (g) potential impacts associated with enhanced LFG generation, (h) availability of air

Response to Comment No. 718 (Cont'd)

quality offsets proposed for this project, and (i) unsaturated vadose zone monitoring.

This EIS/EIR contains an adequate level of technical detail, and sufficient technical information to provide the public with a meaningful opportunity to comment upon the project, and to provide BLM and the County with a reasoned basis for evaluating the project. Providing extensive, additional technical detail in the EIS/EIR would frustrate the important goals under NEPA and CEQA to prepare an understandable, manageable document, while adding little to the consideration of the project by BLM and the County. At some point, the level of technical detail regarding the project would become numbing, rather than enlightening. BLM and the County believe the EIS/EIR strikes an appropriate balance between technical detail and manageability. Accordingly, the County and BLM believe that the EIS/EIR contains a proper degree of detail.

With respect to monitoring information, see response to Comment No. 13.

With respect to siting criteria and impacts from essential components, such as the transfer stations/MRFs, see responses to Comment Nos. 15,360, 574, and 590. More information is provided in the responses to Comment Nos. 719 and 720 that follow.

With respect to proposed mitigation measures, the Draft EIS/EIR identifies numerous mitigation measures designed to address the project's impacts. BLM and the County believe that the Draft EIS/EIR describes these mitigation measures at an appropriate level of detail.

With respect to proposed mitigation plans, see responses to Comment Nos. 335, 339, and 349.

With respect to views of expert biologists which question the feasibility or efficacy of proposed mitigation measures, see responses to Comment Nos. 197, 320, 323, 336 through 348, 350, 352, 353, 359, 429, 514 through 518, 527, 527, 531, and 533 through 546.

With respect to potential impacts associated with enhanced LFG generation, see responses to Comment Nos. 409, 434, 447, 467, 625, 626, and 640. Please also see response to Comment No. 719 that follows.

Response to Comment No. 718 (Cont'd)

With respect to the availability of air quality offsets proposed for this project, see responses to Comment Nos. 570 and 637.

With respect to unsaturated vadose zone monitoring, see response to Comment No. 110.

The comment also states that the Draft EIS/EIR does not contain an adequate description of existing conditions. Under CEQA, an EIR must describe "the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and regional perspective." (CEQA Guidelines, § 15125.) The EIR's description of the project's environmental setting provides the baseline against which the proposed project's environmental impacts are then measured. The EIR's description of the environmental setting must be based on actual, existing physical conditions, and not on hypothetical conditions that may exist in the future at build-out of adopted land-use policies and plans. For example, in Environmental Planning and Information Council v. County of El Dorado ("EPIC") (1982) 131 Cal.App.3d 350 [182 Cal.Rptr.317], which is cited by the comment, the challenged projects consisted of two area plans that reduced dramatically the projects' population holding capacities as compared to the county's general plan. The EIRs concluded that the proposed projects' impacts would be proportionately smaller than those under existing plans. The Court invalidated the EIRs, holding that the proper comparison was instead with actual, on-the-ground conditions in the area. (131 Cal.App.3d at 354 [182 Cal.Rptr.317]; see also CEQA Guidelines, § 15125, subd. (c); Christward Ministry v. Superior Court (1986) 184 Cal.App.3d 180, 190-191 [228 Cal.Rptr.868].)

The Draft EIS/EIR for the project contains an extensive, detailed description of the project's environmental setting. (Draft EIS/EIR, Chapter 3.0.). This description focuses on existing conditions, not on projected conditions upon build-out of the Imperial County General Plan. Moreover, the analysis of the project's environmental impacts compares the project's effects with existing conditions, rather than with hypothetical future conditions. Thus, the Draft EIS/EIR has been prepared in accordance with the EPIC decision. Please see response to Comment No. 401.

for this project; (i) unsaturated vadose zone monitoring of pollution leaking from point sources under the lined landfill footprint..

> Public Res. Code Sec. 21005. The Legislature finds ...that noncompliance with information disclosure provisions of this division which precludes relevant information from being presented to the public agency or with substantive requirements of this division may constitute a prejudicial abuse of discretion...regardless of whether a different outcome would have resulted if the public agency had complied with those provisions.

Accordingly, we request preparation of a revised draft or draft subsequent EIS/EIR with release for a full comment period.

In Environmental Planning and Information Council v. County of El Dorado (1982) (131 C.A.3d 350, 354; 182 C.R. 317) the Court faulted the lead agency for failing to concern itself adequately with the proposed project's effects on "the existing physical conditions" in the "actual environment upon which the project will operate". The Court noted that the EPIC EIR forced the reader to "painstakingly ferret out" information regarding actual "physical impacts upon the existing environment". (Id. 357) In the Mesquite DEIS/EIR (DEIS) it was necessary to try to ferret out from the technical appendices that information which was missing, incomplete or inadequate in the DEIS. Such ferreting efforts (a) were often not successful; and revealed that (b) in places DEIS text was inconsistent with information in appendices; (c) information in appendices was incomplete or inconsistent with data in other appendices; (d) data used in calculations was not the same as data reportedly collected at the Mesquite Mine site; (e) DEIS conclusions were not always consistent with information in technical appendices; (f) concerns of expert biologists about potential impacts of human disturbances on the desert tortoise are far more significant than revealed in DEIS; (g) mitigation measures proposed to reduce the impacts of project on desert tortoise are unproven and may be of little positive value.

These deficiencies must be corrected in a revised or subsequent Draft EIS/EIR and released for a full public comment period.

INADEQUATE AND INCOMPLETE PROJECT DESCRIPTION RESULTS IN INADEQUATE DISCUSSION OF ENVIRONMENTAL IMPACTS OF THE ENTIRETY OF THE PROPOSED MESQUITE RAIL HAUL LANDFILL PROJECT AS REQUIRED BY CEQA GUIDELINES SEC.15126

719 DEIS/EIR fails to adequately discuss significant environmental impacts of the proposed rail haul landfill project as required by CEQA Guidelines sec.15126. With respect to the major deficiencies, relevant text of Sec. 15126 follows:

> All phases of a project must be considered when evaluating its impact on the environment: planning, acquisition, development, and operation. The following subjects shall be discussed, preferably in separate sections or paragraphs. If they are not discussed separately, the EIR shall include a table showing where each of the subjects

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 719

This EIS/EIR contains an adequate and complete description of the proposed project that has allowed for an adequate discussion of the environmental impacts of the proposed project. The comment claims that the Draft EIS/EIR "piece-meals" the analysis of the project by failing to address impacts associated with two aspects of the project: (1) a program to condition MSW to enhance LFG production; and (2) the siting, construction and operation of material recovery facilities ("MRFs") and related facilities and operations.

MSW Conditioning Program

The project includes a pilot program involving conditioning MSW to increase LFG production. The pilot program is part of the proposed project. (Draft EIS/EIR, pp. 2-43 - 2-44.) The Draft EIS/EIR analyzes the impacts associated with the pilot program. For example, the analysis of impacts to air quality and ground water takes into account impacts associated with the limited, temporary pilot program.

The project description does not include, however, a full-scale MSW conditioning program. The pilot program is designed to determine whether such a full-scale program would be technically and economically feasible. The applicant will not know whether it will proceed with the full-scale program until after it completes the pilot program.

The comment argues that, by failing to describe and analyze the full-scale MSW conditioning program, the Draft EIS/EIR is guilty of "piece-mealing" the project. Under CEQA, an EIR's description of the project should account for reasonably foreseeable future phases of the project. In Laurel Heights Improvement Association of San Francisco, Inc. v. Regents of the University of California ("Laurel Heights I") (1988) 47 Cal.3d 376, 393-399 [253 Cal.Rptr.426], the California Supreme Court adopted a two-prong test to determine when such future phases should be assessed as part of an initial project EIR. Under this test, "an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (47 Cal.3d at 396 [253 Cal.Rptr.426].)

Response to Comment No. 719 (Cont'd)

The approach taken by the BLM and County of Imperial in preparing the Draft EIS/EIR is consistent with this standard. The full-scale MSW conditioning program is not a reasonably foreseeable consequence of the proposed project. As noted above, the applicant does not know whether or when the full-scale program will get underway, and will not know the answer to these questions until after it completes the pilot study. Accordingly, it would be inappropriate to analyze the impacts of a full-scale conditioning program at this time.

Moreover, the approvals sought by the applicant do not include a full-scale conditioning program. Prior to embarking on a full-scale conditioning program, the applicant will be required to obtain discretionary permits from the County, the ICAPCD and the RWQCB. Environmental review of the full-scale conditioning program will occur if and when the applicant submits permit applications to proceed with such a program.

A different result might be reached if, for example, the landfill project was financially infeasible *unless* the full-scale MSW conditioning program were implemented. There is no evidence, however, that such circumstances exist here. On the contrary, the applicant will not know whether the full-scale program is financially and technically feasible until after it completes the pilot study. Moreover, even if the applicant decides to proceed with the full-scale program, neither the County nor other agencies will approve such a program unless the environmental impacts associated with such a program are addressed.

In short, the Draft EIS/EIR does not "piece-meal" environmental review by not considering the full-scale MSW conditioning program. At this time it is not reasonably foreseeable whether the applicant will embark on this program. Because such a program is possible, however, the Draft EIS/EIR appropriately calls the attention of the public and decision-makers to that potential scenario. Nothing more is required.

MRFs and Related Facilities

MSW will be delivered to transfer stations/MRFs ("MRFs"), shipped to a centralized intermodal facility, loaded onto trains, and transported to the project. (Draft EIS/EIR, pp. 2-54 - 2-56.) The Draft EIS/EIR does not analyze environmental impacts associated with siting, constructing and operating MRFs and/or the intermodal facility. Nor does the Draft EIS/EIR

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 719 (Cont'd)

analyze environmental impacts associated with transporting MSW by truck from the source to MRFs. (Draft EIS/EIR, p. 2-56.)

The reason the Draft EIS/EIR does not analyze these impacts is that the MRFs and related facilities are not part of the project description for this project. It is true that the landfill cannot proceed without the MRFs and intermodal because MSW will be delivered to the landfill by train from the MRFs via the intermodal. In other words, the project is contingent on the existence of the MRFs and intermodal facility.

The converse, however, is not true: The siting, construction and operation of the MRFs and related facilities does not depend on the approval of the Mesquite landfill project. On the contrary, with or without the Mesquite landfill project, Southern California residences and businesses will continue to generate MSW. Cities and counties in southern California will be required to comply with the diversion requirements established by AB 939. (Draft EIS/EIR, pp. 2-56 - 2-57.) In order to comply with these requirements, MSW will be trucked to MRFs for sorting, composting, recycling, and similar activities. Following processing at the MRFs, MSW residue will require disposal. That MSW residue will need to be disposed of in some manner. The landfill project is designed to provide one option for the environmentally safe disposal of this residue.

At this time, it is not known whether waste destined for the proposed Mesquite Regional Landfill will travel through existing MRFs and intermodal facilities, or whether new MRFs or intermodal facilities will be constructed. (Draft EIS/EIR, p. 3-66.) To the extent new facilities are required, these new facilities will be subject to environmental review. The approval of the landfill project will not affect environmental review of any new MRFs or intermodals that are proposed.

Transporting the waste from the source to MRFs and/or intermodals will be required under any scenario. Similarly, operation of MRFs and/or intermodals will be required regardless of the MSW residue's ultimate resting place. None of these activities are part of the proposed Mesquite Regional Landfill. If a new MRF or transfer station is proposed, or an existing MRF or transfer station is proposed to be enlarged, due to establishing a contract to haul waste to the proposed Mesquite Regional Landfill, then the construction or expansion of that MRF or transfer station would be subject to separate environmental review.

Response to Comment No. 719 (Cont'd)

3. Cases Cited by Comment

This project is distinguishable from the cases cited by the comment. In Citizens Association for Sensible Development of Bishop Area v. County of Inyo (1985) 172 Cal.App.3d 151 [217 Cal.Rptr.893], for example, the County prepared two separate negative declarations, rather than a single EIR, for the approvals necessary for a project consisting of a single shopping center. The first negative declaration addressed the proposal to amend the county's general plan and to rezone the proposed site. The second negative declaration focused on the county's approval of a tentative map and proposed road abandonment. The Court found, however, that a single environmental document should have been prepared examining the impacts of approving what was, in truth, a single project: the shopping center. (172 Cal.App.3d at 165-166 [217 Cal.Rptr.893].)

Similarly, in McQueen v. Board of Directors of the Mid-Peninsula Regional Open Space District (1988) 202 Cal.App.3d 1136 [249 Cal.Rptr.439], the Court held that the respondent agency had been guilty of the "fallacy of division" in adopting a categorical exemption for a land purchase without first analyzing the impacts associated with responding to contamination located on the property. The Court criticized the agency for failing to consider these impacts, given that the agency was legally compelled to respond to the contamination in some manner. (202 Cal.App.3d at 1143-1147 [249 Cal.Rptr.439].)

In this situation, unlike the Citizens Association for Sensible Planning case, BLM and the County have prepared a single EIS/EIR examining all reasonably foreseeable phases of the landfill project. The applicant does not seek approval to site, construct or operate one or more MRFs. Moreover, as explained above, the full-scale MSW conditioning program is not part of this permit application, and is not reasonably foreseeable. Thus, BLM and the County have not divided a single project into two or more projects for purposes of environmental review. Moreover, in contrast to the McQueen case, the applicant will not be legally compelled to obtain permits for MRFs or to implement a full-scale MSW conditioning program. In short, BLM and the County are not turning a blind eye to future phases of the project that will necessarily flow from the approval now sought by the applicant, and that will not occur but for the approval of this project.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 719 (Cont'd)

Finally, the comment cites County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185 [139 Cal.Rptr.396]. In County of Inyo, the Court invalidated an EIR in part because the document referred to the proposed project differently in different parts of the document. The Court ruled that a shifting description of the project thwarted effective environmental review, stating: "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (71 Cal.App.3d at 192-193 [139 Cal.Rptr.396].) In the current circumstances, however, the project description is stable and consistent throughout the Draft EIS/EIR.

is discussed.

(a) The Significant Environmental Effects of the Proposed Project. An EIR shall identify and focus on the significant environmental effects of the project. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. ....

(b) Any Significant Environmental Effects Which Cannot be Avoided if the Proposal is Implemented. Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described. (CEQA Guidelines, Sec.15126.)

CEQA "project" defined

CEQA Guidelines Sec. 15378 states that:

(a) "Project" means the whole of an action which has the potential for resulting in a physical change in the environment directly or ultimately, and that is any of the following:

(3) Any activity involving the issuance to a person of a lease, permit, ... for use by one or more public agencies.

(c) The term "project" refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term "project" does not mean each separate governmental approval. (CEQA Guidelines Sec. 15387.)

CEQA requires: "that environmental considerations do not become submerged by chopping a large project into many little ones -- each with minimal potential impact on the environment -- which cumulatively may have disastrous consequences." (Citizens Association for Sensible Development of Bishop Area v. County of Inyo (1985) 172 C.A. 3d 151, 165-166.)

> For purposes of impact assessment, a lead agency should define its project broadly to ensure a complete analysis of impacts resulting from future expansion or continuation of the initial aspects or phases of a project. Such impacts resulting from future expansion or continuation

> of the project is a reasonably foreseeable consequence of the project as initially conceived, and where the actions will change the scope or nature of the initial project or its environmental effects. (Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 C. 3d 376, 395-396) [253 C.R. 426]] Cited in Remy (1993), p. 47).

In a number of places in DEIS/EIR text, references were made to the need for future EIS/EIS documents (DEIS 2-44) or the need for essential components (Transfer stations/MRFs, DEIS 2-56). Rather than discussing the whole of the essential component parts of the proposed project, a reliance on future environmental review suggests the DEIS/EIR intent to chop the proposed project (rail haul of MSW residue from transfer stations/MRFs in Southern California to the proposed landfill in Imperial County) into many smaller projects, an action unacceptable under CEQA. Such a division of the proposed actions can result in an agency overlooking the "whole of the action" of the project's cumulative impacts "by separately focusing on isolated parts of the whole." (McQueen v. Board of Directors of the Midpeninsual Regional Open Space District (1988) 202 C.A. 3d 1136, 1144 [249 C.R. 439], cited in Remy, 1993, p. 47.)

By deferring the EIR process and piecemealing it over an extended period of time,the DEIS/EIR impermissibly narrows the "project" to exclude essential component portions of the project that have impacts at sites hundreds of miles separate from (the proposed LF site), although still "a potential for significant land use impacts". DEIS/EIR thereby ignores CEQA Guidelines Sec. 15130(b) requirement for discussion of cumulative impacts of the "whole of the action" (of the proposed project to transport MSW residue from transfer stations/MRFs in urban/suburban areas of Southern California by rail to a mega-landfill in Imperial County), including "past, present, and reasonably anticipated future projects" or essential parts of the single proposed whole of the project, thereby producing related cumulative impacts which "can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines 15355.)

> A thorough project description is necessary because:
> A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. (County of Inyo v. City of Los Angeles (1977) 71 C.A. 3d 185,193 (Inyo II).)

By not fully discussing the transfer stations and MRFs and truck haul from them to LATC -- essential components of the proposed regional landfill, because MSW residue must come through

a MRF -- the DEIS/EIR project description omits information that is essential to an adequate evaluation of project related environmental and cumulative impacts that occur off-site at locations distant from the proposed LF site..

In discussing what constitutes an adequate EIR, Remy observed that the Kings County Farm Bureau Court addressed the following important issues:

> the need to support with rigorous analysis and concrete substantial evidence the conclusion that impacts will be insignificant; the requirement to analyze both "on-site" and "secondary" air pollution emissions in assessing the overall significance of air quality impacts; the proper method by which to assess cumulative impacts in context of an already degraded environment; the proper geographic scope of cumulative impact analysis; the requirement to provide comparative quantitative analysis in assessing the environmental merits and feasibility of project alternatives; and the fact that analysis of alternatives should not be unduly narrowed by investments made by applicants prior to the commencement of environmental review. (Remy, 181)

The missing information and inadequate discussions of all components essential for project viability and feasibility results in a DEIS/EIR which could not provide an adequate discussion of impacts for the whole of the project. Impacts of the whole project include those impacts which will occur in urban areas where MSW passes through a MRF before MSW residue is trucked from transfer stations/MRFs to the rail-haul start point. DEIS 3-83.) It is at these transfer stations/MRFs where hazardous materials are separated out and stored before transit to off-site waste disposal sites. Accordingly, many conclusions that the impacts of the proposed project will be insignificant are without foundation and based on incomplete project description. Although the DEIS/EIR contains much information and many tables, much of it is unrelated or irrelevant to the missing information(for the whole of the project) which is essential to support with "rigorous analysis and concrete substantial evidence the conclusion that impacts will be insignificant" (Remy, 181).

It is a conclusory statement that: "Implementation of these measures would result in insignificant cumulative impacts to the desert tortoise. (DEIS 4-210) or that the cumulative impacts of the proposed project on transportation would not be significant. (DEIS 4-211). And although discussion of air quality impacts considers "enhanced LFG generation, the water resources sections fail to discuss potential for groundwater pollution as a result of increased leachate production associated with LFG enhancement. This results from an inconsistent picture of the proposed project.

> Although an EIR analysis "need not be exhaustive" (CEQA Guidelines, Sec. 15151), nevertheless, even before the Kings County Farm Bureau decision, "the courts have favored specificity and use of detail in EIRs." (Whitman

v. Board of Supervisors (1979) 88 C.A. 3d 397, 411; 151 C.R. 866.) "A conclusory statement 'unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind 'not only fails to crystallize issues [citation] but' affords no basis for a comparison of the problems involved with the proposed project and the difficulties involved in the alternatives." (People v. County of Kern (1974) 39 C.A. 3d 830, 841-842; 115 C.R. 67), quoting Silva v. Lynn (1973) 482 F.2d 1282,1285.) (Remy, 181-182.)

DEIS/EIR PROVIDES INADEQUATE TECHNICAL INFORMATION ABOUT THE COMPLETE PROJECT AND ITS ESSENTIAL COMPONENTS

720 The DEIS/EIR is inadequate because it fails to provide the basic information about the size, number, potential siting and impacts of the transfer stations/MRFs and associated potential truck haul routes from existing transfer stations/MRFs to the rail loading center. (DEIS 3-66, 3-83.) These transfer stations/MRFs and truck haul transport are essential parts of the rail haul proposal (DEIS S-5; 1-1; 2-56).

In the absence of crucial technical information and environmental siting constraints and impacts of the transfer stations and MRFs which are essential components of the proposed rail haul landfill project, there is insufficient information to determine if the stated regional landfill rail haul purpose of the project (to receive MSW residue from urban areas of Southern California) can be achieved at the site in question.

> CEQA Guidelines Sec. 15147 specify that:
> the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public.

In two court cases which discuss completeness of project descriptions, the courts have found EIRs to be inadequate if they fail to provide enough information to reasonably assess the project. In a long standing dispute regarding the attempts of the City of Los Angeles to increase its extraction of groundwater from the Owens Valley the Court stated that: "An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment of whether the purpose can be achieved." (County of Inyo v. City of Los Angeles (1981) 124 C.A. 3d 1, 9; 177 C.R.479.)

In another case, the Court found an EIR inadequate in part for failing to mention the construction of water delivery facilities, which were an integral part of the project. It was noted that:

> The construction of additional water delivery facilities is undoubtedly one of the most significant environmental effects of the project. As such, a description of the necessary construction had to be included if the EIR was to serve its informational purpose (Sec. 21100,

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 720

Please see response to Comment No 719.

The comment cites two additional cases, both of which involve circumstances that differ from the proposed project. In Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818 [173 Cal.Rptr.602], the Court struck down the EIR for a proposed mining operation because the document failed to discuss the availability of a water supply needed for the operation, or the facilities that would be needed to provide that supply. (118 Cal.App. at 829-831 [173 Cal.Rptr.602].) Similarly, in No Oil, Inc. v. City of Los Angeles (1987) 196 Cal.App.3d 223 [242 Cal.Rptr.37], the Court upheld an EIR for an exploratory drilling operation. The project included a pipeline to transport oil in the event the exploratory wells proved productive. The Court stated that at least a general discussion of impacts from the pipeline was required, even if the precise route of the pipeline had not been determined. (196 Cal.App.3d at 233-234 [242 Cal.Rptr.37].)

These cases stand for the proposition that the EIR must examine all essential components of the project. As noted above, however, the MRFs and intermodals are not part of the proposed project. The project will require MRFs and intermodals in order to deliver MSW residue by rail from urban centers in southern California to the landfill. It is not known whether existing MRFs and intermodals will suffice, or whether additional facilities will be required. But, once again, those facilities will be required regardless of where the MSW residue is ultimately shipped. In short, the existence of MRFs and intermodal facilities is a prerequisite to, rather than an essential component of, the landfill project.

Santiago and No Oil are distinguishable. In those cases, the auxiliary facilities (water supply facilities and oil pipelines, respectively) would not be required but for the approval of the project. Here, however, the need for MRFs and intermodals does not depend on the approval of the landfill project.

subd.(a), Guidelines Sec. 15143, subd.(a).) Because of this omission, some important ramifications of the proposed project remained hidden from view at the time the project was being discussed and approved. This frustrates one of the core goals of CEQA." (Santiago County Water District v. County of Orange (1981) 118 C.A.3d 818, 829-830,; 173 C.R. 602.) "Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefits against the environmental cost, consider mitigation measures, assess the advantage of terminating the proposal...and weigh other alternatives in the balance. An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." (County of Inyo v. City of Los Angeles, supra, 71 C.A.3d 185, 192-193.) (Santiago County Water District v. County of Orange (1981) 118 C.A.3d 818, 829-830,; 173 C.R. 602.)

The Santiago Court was explicit that:
The EIR must contain facts and analysis, not just the bare conclusions of a public agency. An agency's opinion concerning matters within its expertise is of obvious value, but the public and decision-makers, for whom the EIR is prepared, should also have before them the basis for that opinion so as to enable them to make an independent, reasoned judgment.

Moreover, even if the Water District does have the ability to meet the water requirements of the project, the EIR is silent about the effect of the delivery of water service elsewhere in the District's jurisdiction.

It is the adequacy of the EIR with which we are concerned, not the propriety of the board of supervisors' decision to approve the project. "[W]hatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report." (Environmental Defense Fund, Inc. v. Coastside County Water Dist. (1972) 27 C.A.3d 695, 706 [104 C.R. 197].) (Santiago County Water Dist., supra, at 831.)

For the Mesquite Regional rail haul landfill project, an integral and essential part of the project is the location, future construction, and functioning and or ability of MRFs and transfer stations to transport MSW residue from urban and suburban centers in Southern California (DEIS S-5; 1-3) to rail centers for rail haul transport over the SP Main Line to the proposed Mesquite LF site in Imperial County (DEIS 2-1).

Accordingly, the proposed LF project cannot identify transfer stations/MRFs as the originating source of MSW residue and then fail to provide information about impacts associated with siting and construction of those facilities and how MSW will get from transfer stations/MRFs to train loading sites. DEIS admits that: "Transfer trucks hauling containers of compacted MSW residue from

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 720 (Cont'd)

WWI's Carson Station is currently operating and has applied for an expansion to 5,000 tons per day independent of the proposed project. If MSW is sent to the LATC from this station, then impacts would remain within the range of impacts for which this transfer station is permitted. If the shipping of MSW residue to the proposed Mesquite Regional Landfill for Carson increases the capacity of that station, further environmental review would be required. There are currently no contracts for shipping MSW residue from the Carson Station to the LATC or the proposed Mesquite Regional Landfill.

transfer stations and MRFs to LATC intermodal facility could potentially be considered a project related activity." (DEIS 3-83.) However, the DEIS then declines to describe potential routes from Western Waste transfer stations/MRFs and/or other potential transfer stations/MRFs or to discuss the impacts along those routes even though such truck haul routes would be different from the truck haul routes from transfer stations/MRFs to the existing landfills.

Although approximately 20,000 tpd of MSW permitted capacity exists at transfer stations//MRFs in Los Angeles County today (DEIS 3-66), DEIS makes reference to several possible intermodal facilities (DEIS 3-66) and additional intermodal and transfer stations/MRF facilities may be built (DEIS 3-66). Additionally, there are proposals (and approvals) for a number of other large rail-haul LFs in the Southern California deserts (DEIS 2-86), including two of which propose to use the SP Main Line (DEIS 2-59), so it is not reasonable to assume that the entire permitted transfer station/MRF capacity in Los Angeles County would all go to the Mesquite Landfill. Therefore, analysis of other transfer stations/MRFs and possible (generic) routes from such facilities to train load intermodals must be included in the DEIS/EIR.

For the proposed Mesquite Regional landfill project, information on the required numbers, sizes, siting constraints and requirements, construction, and possible environmental impacts of the transfer stations and Materials Recycling Facilities which are necessary components of the proposed rail haul of MSW residue to the proposed regional landfill is left almost entirely to the imagination. Additional technical information necessary to assess whether the stated purpose of the project can be achieved is missing. The DEIS/EIR includes no information on the location and sizes of existing transfer stations/MRFs in the Southern California area or any indication as to whether the existing locations of transfer stations/MRFs are adjacent to rail lines or whether all MSW residue from transfer stations and MRFs would have to be hauled by truck to SP's existing City of Industry intermodal facility or to the Los Angeles Transportation Center (LATC) (DEIS S-5). DEIS fails to include discussion of potential truck routes and the potential environmental impacts associated with use of such generalized truck routes from existing transfer stations/MRFs to both the City of Industry intermodal facility and/or the LATC which the DEIS identified as a future MSW train loading site... or "to any new intermodals that may be built in the region in the future" (DEIS S-5). An adequate EIS/EIR for the proposed project requires this information be included.

Indeed, other than noting that "an unknown number of transfer stations/MRFs are expected to be built in the future by Southern California communities" (DEIS/EIR 2-56), and a mention that a 3,000 tpd transfer station/MRF would require about 10 to 30 acres with an enclosed area of 100,000 square feet, possibly in an industrial zone (DEIS 2-56), the DEIS fails to include discussion of possible siting criteria and potential environmental impacts of these essential components of the proposed project. There are already

several transfer stations in Southern California (DEIS 2-56), including one in Carson operated by Western Waste (Rabin 1989). Consequently, there is no justification for DEIS/EIR conclusion that "Because it is not possible to identify the location, construction, and operation characteristics of future transfer stations/MRFs throughout Southern California, the environmental impacts of these facilities cannot be predicted in this EIS/EIR." (DEIS 2-56.) Surely the Western Waste partner has knowledge about siting criteria and difficulties as well as environmental impacts associated with such a transfer station/MRF.

Because readers of the report are left to speculate about the potential MSW waste transfer stations/MRFs, facilities, delivery system for MSW residue from transfer stations/MRFs to rail transport loading stations (intermodal sites), transport routes from transfer stations and MRFs through urban areas, there is considerable doubt that the authors have considered the required environmental impacts details of this central element of the proposed project as is required by CEQA. This failure to provide basic information about the nature of the essential component to the functioning and feasibility of the proposed rail haul landfill project renders the DEIS/EIR inadequate.

In another analysis of the requirements for an EIS/EIR to discuss all essential components of the proposed project, we look to the No Oil, Inc. Court discussions to learn what detail of adequate discussion is required for component parts of a project if the EIS/EIR is to be sufficient as an information document. That Court stated:

> In Whitman v. Board of Supervisors (1979) 88 Cal. App.3d 397 [151 Cal.Rptr. 866], ...: "The record before us reflects that the construction of a pipeline was, from the very beginning , within the contemplation of Phoenix should its well prove productive. Although admittedly contingent on the happening of certain occurrences, the pipeline was, nevertheless, part of Phoenix' overall plan for the project and could have been discussed in the EIR in at least general terms " (Id. at pp.414-415, fn. omitted, italics added.)
>
> In the case at bench, since it is conceded that any oil extracted for production will be transported by pipeline, the EIR must, at a minimum, contain some discussion of the pipeline's effects if it is to satisfy CEQA's requirements. (No Oil, Inc. v. City of Los Angeles (1987) 196 C.A. 3d 223, 233; 242 C.R. 37.)

Obviously, the No Oil Court considered the pipeline an essential part of the oil drilling project. With respect to the proposed Mesquite rail haul project, not only are the proposed landfill site near the Mesquite Gold in Imperial County and the use of the SP Main Line and proposed SP rail spur essential parts of the proposed project, but so are (a) the use of transfer stations/MRFs; (b) the initial probable truck haul of MSW residue from transfer stations/MRFs to the train loading facilities at SP's City of Industry intermodal facility and/or the Los Angeles Transporta-

tion Center (DEIS S-5; 2-55, 2-56, 3-83); (c) probable future siting and construction of additional transfer stations/MRFs; (d) probable future siting and construction of additional intermodal facilities (DEIS 3-66); in addition to (e) urban storage of hazardous waste removed from MSW prior to disposal at a landfill facility (DEIS 4-24)..

Just as the courts found the pipelines to transport oil from the oil wells to be essential components of exploratory oil and gas well projects, we believe that the transfer stations/MRFs and truck haul from those existing sites to rail loading centers or the siting and construction of transfer stations/MRFs capable of functioning to provide MSW residue for rail haul to the proposed landfill are essential components of the whole of the proposed project. Being essential components of the whole of the proposed project: "The question thus becomes whether the EIR's discussion of the pipeline [transfer stations/MRFs and truck haul routes in the Mesquite case] provided ... enough details to permit an environmentally informed decision." (No Oil, Inc. at p.234.)

Indeed, the No Oil Court's comments on the adequacy of the EIR in discussing potential impacts of the whole of the project explains that:

> The draft EIR discussed the pipeline in terms of construction noise, risk of upset, mitigation measures, and impact of traffic and aesthetics.
>
> The final EIR contained a section responding to comments received regarding the draft EIR. Addressing Pacific's comment concerning the draft EIR's pipeline discussion, the final EIR set forth a description of each route's destination, the uses of the land the pipeline would cross, the schools located along the route, the public entities from which a permit would be required, and the pipeline construction's effect on trade.
>
> In response to other comments, the final EIR addressed, inter alia, concerns regarding the rate at which the pipeline could be constructed, risk of polluting the City of Santa Monica's ... water supply, dust and vehicle emissions caused by pipeline construction, and the risks of spills, fires and explosions. (No Oil, Inc. v. City of Los Angeles (1987) 196 C.A. 3d 223, 234; 242 C.R. 37.)

Accordingly, the No Oil Court concluded "that the EIR adequately informed the City Council of environmental risks associated with the entire project including the pipeline." (No Oil, Inc. v. City of Los Angeles (1987) 196 C.A. 3d 223, 237-238; 242 C.R. 37.)

For the proposed Mesquite rail-haul landfill project, there is inadequate discussion of potential environmental impacts associated with construction and siting of necessary transfer stations/MRFs and impacts associated with use of intermodal facilities. in the urban counties of the SOCAB or in Imperial County. Consequently, both the DEIS/EIR project description and discussion of impacts of the proposed project are incomplete and inadequate. Discussion of impacts associated with the use of these facilities for the proposed project should be included in an adequate EIS/EIR not

piecemealed and deferred to future environmental review (DEIS 3-66).

> A legally adequate EIR:
> must contain sufficient detail to help ensure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug. (Concerned Citizens of Costa Mesa, Inc. v. 32nd. Dist. Agricultural Assn. (1986) 42 C.3d 929, 935 [231 C.R. 748,727 P.2d 1029]; People v. County of Kern (1974) 39 C.A. 3d 830,841 [115 C.R.67].) It must reflect the analytic route the agency traveled from evidence to action. (Topanga Assn. for a Scenic Community v. County of Los Angeles (19074) 11 C.3d 506,515 [113 C.R. 836, 522 P.2d 12].) An EIR which does not produce adequate information regarding alternatives cannot achieve the dual purpose served by the EIR, which is to enable the reviewing agency to make an informed decision and to make the decisionmaker's reasoning accessible to the public, thereby protecting informed self-government. (Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 C.3d 376, 392;253 C.R. 426.)

Similarly, DEIS/EIR discussions of the potential impacts of the enhanced LFG generation on increased leachate formation and the associated increased potential for pollutants passing through the unsaturated vadose zone to reach groundwater resources are missing from discussions of water resources, even though there is considerable discussion related to enhanced LFG generation in the air quality analysis.

A 1987 decision by the 9th Circuit Court of Appeals clarifies the position a government agency must take when there is an insufficiency of data provided.

> If a government agency has difficulty obtaining adequate information upon which to make a reasoned assessment of the environmental impacts of a course of action, it may not simply negate the existence of these impacts. Rather, it has an obligation to engage in what is called a "worst-case" analysis. (Methow Valley Citizens Council v. Regional Forester (9th Cir. 1987) 833 F. 2d 810, 817.)

It appears that there is a choice for the DEIS/EIR to include adequate information and discussion related thereto, or to provide a "worst case analysis".

INADEQUATE DISCUSSION OF THE SINGLE ALTERNATIVE PROJECT SITE

721 DEIS/EIR discussion of Alternative III, the alternative project site, is inadequate because it fails to include any meaningful discussion of the project site: "Because no biological survey was completed for the alternative site" (DEIS 4-180).

Additionally, the DEIS/EIR is inadequate for failing to

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 721

The comment claims that the Draft EIS/EIR's analysis of alternatives is inadequate. In light of this comment, the County and BLM believe it would be helpful to explain their approach towards devising the alternatives that have been analyzed.

Under CEQA, a Draft EIR must describe a range of reasonable alternatives to the proposed project, or to its location, that could feasibly attain the project's basic objectives, and must evaluate the comparative merits of each alternative. (Pub. Resources Code, § 21100, subd. (d); CEQA Guidelines, § 15126, subd. (d).) The discussion must focus on alternatives capable of either eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if such alternatives would be more costly or would impede to some degree the project's objectives. (CEQA Guidelines, § 15126, subd. (d)(3).) One of the alternatives analyzed must be the so-called "no project alternative," which "describe[s] what condition or program preceded the project." (County of Inyo v. City of Los Angeles (1977) 71 Cal. App. 3d 185, 201 [139 Cal.Rptr.396].)

"The discussion of alternatives need not be exhaustive, and the requirement as to the discussion of alternatives is subject to a construction of reasonableness. [CEQA] does not demand what is not realistically possible given the limitation of time, energy, and funds. 'Crystal ball' inquiry is not required." (Residents Ad Hoc Stadium Committee v. Board of Trustees (1979) 89 Cal.App.3d 274, 286 [152 Cal.Rptr.585]; see also CEQA Guidelines, § 15126, subd. (d)(5); Foundation for San Francisco's Architectural Heritage v. City and County of San Francisco (1980) 106 Cal.App.3d 893, 910 [165 Cal.Rptr.401].) "The key issue is whether the selection and discussion of alternatives fosters informed decision making and informed public participation. An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." (CEQA Guidelines, § 15126, subd. (d)(5).)

The alternatives need only relate to the project *as a whole*, not to its various parts. The County and BLM therefore need not analyze specific alternatives to such parts. (Big Rock Mesas Property Owners Association v. Board of Supervisors (1977) 73 Cal.App.3d 218, 227 [139 Cal.Rptr.445]; Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners (1993) 18 Cal.App.4th 729, 744-744 [22 Cal.Rptr.2d 618]; A Local & Regional Monitor

provide adequate information to facilitate discussion of a reasonable choice of alternatives to the site on and adjacent to the Mesquite Mine which could achieve the stated purpose of the project ("disposing of MSW residue that has undergone reduction and recycling" (DEIS 2-1)) with less environmental impacts.

> CEQA requires that an EIR must discuss alternatives to the proposed project. (Pub. Resources Code, Sec. 21100, subd. (d).) CEQA guidelines provide that the EIR shall describe all reasonable alternatives to the site which could possibly achieve the basic objectives of the project and state why they were rejected, and that the discussion of alternatives shall focus on alternatives capable of eliminating or reducing any adverse environmental effects, even if they substantially impede the project or are more costly. (Cal. Admin. Code, Tit.14, Sec 15126(d), formerly Sec. 15143(d).)
>
> Although EIRs are not required to be perfect or to discuss project alternatives beyond what is realistically possible (Foundation for San Francisco's Architectural Heritage v. City and County of San Francisco (1980) 106 C.A.ed 893,910 [165 C.R.406]), an EIR must produce information sufficient to permit a reasonable choice of alternatives as far as environmental aspects are concerned. (Residents Ad Hoc Stadium Com. v. Board of Trustees (1979) 89 C.A.3d 274, 287 [152 C.R. 585].) (San Bernardino Valley Audubon Soc., Inc. v. County of San Bernardino (1984) 155 C.A. 3d 738, 750-751; 202 C.R. 423.)

The San Bernardino Court went on to state that even though the EIR had made mention of other alternative sites, the discussion was not sufficient. The Court continued:

> It does not discuss the location or attributes of that property or why it would or would not be a feasible alternative. In short, the EIR does not contain the required sufficient degree of analysis to provide decision-makers with information to allow them to intelligently take account of environmental consequences. (Santiago County Water Dist. v. County of Orange (1981) 118 C.A.3d 818, 831 [173 C.R. 602].) (San Bernardino Valley Audubon Soc., Inc. v. County of San Bernardino (1984) 155 C.A. 3d 738, 751; 202 C.R. 423.)

Because it fails to discuss the attributes of the Alternative III site and the biological resources of that site, the Mesquite DEIS/EIR discussion suffers from the same fault described by the San Bernardino Valley Audubon Court. Additionally, the DEIS fails to give adequate consideration to a much reduced project size accompanied by efforts to increase waste reduction and non-incineration diversion techniques which would further reduce the need for landfilling of MSW residue in the future.

Another court found it "necessary to examine the particular situation presented to determine whether the availability of other feasible sites must be considered in the EIR." Addressing this issue with respect to the location of the project property the

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 721 (Cont'd)

v. City of Los Angeles (1993) 16 Cal.App.4th 630, 642, fn. 8 [20 Cal.Rptr.2d 228].)

Finally, under CEQA, an EIR should provide some discussion of how the project proponent or lead agency, in determining the scope of an EIR, narrowed the range of alternatives down to the specific alternatives discussed in detail within the "range of reasonable alternatives" required by CEQA Guidelines section 15126, subd. (d). The preliminary discussion of how the range was focused need not be as extensive as the full "alternatives analysis" required by the Guidelines. (See Citizens of Goleta Valley v. Board of Supervisors ("Goleta II") (1990) 52 Cal.3d 553, 569 [276 Cal.Rptr.410]; Laurel Heights Improvement Association of San Francisco, Inc. v. Regents of the University of California (1988) 47 Cal.3d 376, 404-405 [253 Cal.Rptr.426].)

CEQA does not prohibit a lead agency or project proponent from applying economic factors in narrowing the range of alternatives to be discussed in detail in a Draft EIR. In fact, in Goleta II, 52 Cal.3d 553, 564-566 [276 Cal.Rptr.410], the California Supreme Court emphasized that the range of alternatives to be included in an EIR should focus on those that could "*feasibly*" attain the basic objectives of the project. In that case, viewing the record as a whole, the Supreme Court concluded that the respondent county was justified in not treating as "feasible" (and thus not including in the challenged Draft EIR) various alternative sites proffered by the project opponents. It is true that the "range of reasonable alternatives" may include alternatives that "would impede to some degree the attainment of project objectives, or would be more costly." (CEQA Guidelines, § 15126, subd. (d)(3).) Nevertheless, a lead agency need not address alternatives that are plainly infeasible, rendering detailed analysis a waste of time and resources.

NEPA also requires than an EIS contain an analysis of alternatives to the project. (42 U.S.C. § 4332, subd. (2)(C)(iii); 40 C.F.R. § 1502.14.) Under BLM policy, an EIS must "[d]escribe the no-action alternative and all reasonable alternatives, including related monitoring requirements, to the same level of detail as the proposed action." The EIS must discuss "[h]ow each alternative, with the exception of the no-project alternative, will generally accomplish the purpose and need for the action.." (BLM NEPA Handbook, Ch. 5, § (C)(3)(f)(3), p. V-17.) The EIS must also "identif[y]

Response to Comment No. 721 (Cont'd)

alternatives considered but eliminated from detailed analysis." (Id., § (C)(3)(f).)

In this case, the Draft EIS/EIR for the proposed landfill contains a detailed analysis of the following alternatives:

- The project as proposed,
- Alternative I -- smaller landfill footprint,
- Alternative II -- reduced daily volumes,
- Alternative III -- alternative landfill site,
- Alternative IV -- larger landfill footprint and increased daily volumes, and
- No Project Alternative.

This EIS/EIR also considers the following alternatives:

- Alternative regional landfill sites, as described in a report prepared by the Southern California Association of Governments concerning regional rail-haul landfill sites and the CIWMB 1994 rail haul status report,
- Alternative regional landfill sites within Imperial County, as described in the Alternative Mesquite Regional Landfill Site Selection Study (Appendix A-3 to Draft EIS/EIR),
- Filling the Mesquite Mine pits,
- Alternative waste management practices (e.g., source reduction, recycling, composting),
- Alternative delivery procedures (truck hauling, alternative rail-haul route, alternative rail spur location), and
- Alternative landfill liner design.

The County and BLM eliminated these latter alternatives from further, detailed analysis. In each case, the Draft EIS/EIR explains why the County and BLM eliminated the alternative from further consideration. (Draft EIS/EIR, pp. 2-86 - 2-107.)

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Response to Comment No. 721 (Cont'd)

The County and BLM believe the Draft EIS/EIR examines a reasonable range of alternatives. The Draft EIS/EIR considers a number of alternative sites, and examines whether these alternative sites would meet the County's siting criteria. It examines in detail one alternative site that meets these criteria. The Draft EIS/EIR also examines a number of operational and design variants on the proposed landfill. The variables considered include the rate of disposal, the size of the landfill footprint, the mechanism for delivering MSW to the landfill, the landfill liner, and filling the mine pits. Several of these variants are examined in great detail.

CEQA does not require that an EIR examine an infinite number of alternatives. Rather, CEQA requires that the EIR undertake an open-minded, frank analysis of different means of attaining the basic objectives of the project. The Draft EIS/EIR more than meets this standard. Accordingly, the County and BLM believe the alternatives analysis in the Draft EIS/EIR is adequate.

The comment also states that the analysis of Alternative III -- the "Alternative Landfill Site" alternative -- is inadequate because no detailed biological survey was performed. More generally, the comment claims that the Draft EIS/EIR fails to discuss the attributes of the Alternative III site.

The comment is incorrect. No formal biological survey was performed for the Alternative III site. The site was visited, however, on a number of occasions. (Draft EIS/EIR, p. 3-151.) Based on these site visits, the Draft EIS/EIR contains a description of the plant communities and animal species, including special interest species, observed or expected to occur on or near the site. (Draft EIS/EIR, pp. 3-151 - 3-155.) The analysis of impacts associated with Alternative III is based on the information compiled during these site visits.

These site visits provided sufficient information to compare the biological impacts of Alternative III with those of the proposed project. The Draft EIS/EIR notes that the plant communities on the Alternative III site closely resemble those present at the proposed site. (Draft EIS/EIR, pp. 4-179 - 4-180.) The Draft EIS/EIR concludes that biological impacts associated with Alternative III would be similar to those associated with the proposed project. This conclusion is unsurprising in

Response to Comment No. 721 (Cont'd)

light of the similarity of the habitats present on the two sites. In addition, as the Draft EIS/EIR notes, much of the project site is already disturbed, and the Alternative III site is in closer proximity to existing desert tortoise relocation areas. Thus, biological impacts associated with Alternative III may be somewhat greater than those associated with the proposed project. (Id.)

The comment states that the Draft EIS/EIR should have considered an additional alternative consisting of a much reduced landfill size, together with enhanced waste reduction and diversion efforts. The Draft EIS/EIR already considers in detail the "no project" alternative and Alternative I, consisting of a smaller landfill. Presumably, the "much reduced landfill size" alternative" would represent an alternative somewhere between no project and Alternative I.

CEQA does not require that an EIR examine an infinite array of alternatives to the proposed project. The leading case on point is Village Laguna of Laguna Beach v. Board of Supervisors (1982) 134 Cal.App.3d 1022, 1028 [185 Cal.Rptr.41]. In that case, the developer proposed to construct 20,000 dwelling units on a piece of property. The alternatives analysis discussed four alternatives to this proposal: no development; the maintenance of existing land-use designations, which allowed just over 10,000 units; a "low-density" alternative, which called for 7,500 dwelling units; and a "high density" plan envisioning 25,000 dwelling units. The petitioner claimed that the EIR should have considered an "obvious" alternative involving the development of between 10,000 and 20,000 dwelling units. The Court disagreed, stating:

> "We conclude.. that the EIR evaluation of plans for the development of 0, 7,500, 10,000, 20,000, and 25,000 dwelling units was sufficient to satisfy the informational goal of CEQA.
>
> "In the present case, there are literally thousands of 'reasonable alternatives' to the proposed project. Certainly, if the building of 0 and 25,000 homes are reasonable alternatives to the proposed 20,000 dwelling unit plan, then the building of 1,000, 16,000, 22,500, and 20,001 homes are reasonable alternatives. But, no one would argue that the EIR is insufficient for failure to describe the 20,001 home alternative. Thus, as both the California and federal courts have recognized, '[t]he statutory requirement for consideration of alternatives must be judged against a rule of reason.' [Citations.]
>
> "It is significant that no claims of deficiencies are made concerning the discussions of the four alternatives that were considered in the EIR. Therefore, it must be assumed that the decision makers and the public could make an informed comparison of the environmental effects of those various plans. It is not then unreasonable to conclude that an alternative not discussed in the EIR could be intelligently considered by studying the adequate descriptions of the plans that are discussed. This EIR should 'not become vulnerable because it fails to consider in detail each and every conceivable variation of the alternatives stated.'"
>
> (134 Cal.App.3d at 1028-1029 [185 Cal.Rptr.41].)

Here, impacts associated with a "much reduced landfill size" alternative can be gleaned from the existing analysis. The existing analysis addresses a reasonable range of alternatives. The County and BLM believe it is sufficient.

The Draft EIS/EIR does consider alternative waste management practices. (Draft EIS/EIR, pp. 2-102 - 2-103.) As the Draft EIS/EIR states, the landfill will accept only MSW residue -- that is, MSW from which recyclable and compostable materials have already been removed. Thus, the use of enhanced alternative waste management practices is already built into the project.

Finally, the comment states that the Draft EIS/EIR should have considered additional, alternative sites. Although the comment is somewhat unclear, the comment appears to request that the Draft EIS/EIR consider sites not located on Federal land.

The Draft EIS/EIR contains an extensive analysis of alternative regional landfill sites. The analysis examines sites identified by the Southern California Association of Governments (SCAG). (Draft EIS/EIR, pp. 2-86, 2-93, 2-95.) All of the sites identified by SCAG were eliminated from detailed review because they failed to meet the project's basic

Response to Comment No. 721 (Cont'd)

objectives. (Id.) The analysis also considers whether other appropriate sites for a regional landfill may exist elsewhere in Imperial County. (Draft EIS/EIR, pp. 2-86 - 2-101.) Based on this analysis, all alternative sites other than Alternative III were eliminated from further consideration. (Draft EIS/EIR, p. 2-101.)

The comment appears to call upon the Draft EIS/EIR to examine another, unnamed alternative that does not involve the use of Federal land. The comment does not, however, identify such an alternative, nor are BLM or the County aware of such an alternative. Moreover, it is not clear whether locating the landfill on non-Federal land, by itself, would lessen the project's impacts on the environment. Under such circumstances, the Draft EIS/EIR's analysis is adequate. (See Save San Francisco Bay Assn. v. San Francisco Bay Conservation and Development Commission (1992) 10 Cal .App. 4th 908, 923-930 [13 Cal.Rptr.2d 117].)

Applicant owned, the Goleta Court stated:

> Whether its location should be at ... [a proposed project site] or elsewhere depends upon the relative merits and demerits remaining after maximum amelioration of environmental impacts. Serving the public purpose at minimal environmental expense is the goal of CEQA. Ownership of the land used and the identity of the developer are factors of lesser significance. .... It would not be reasonable to fail to consider an alternative site based on the assumption that it, too, could be developed for the same general purpose. Reason requires that the agency charged with the duty to protect the environment compare impacts at feasible alternative locations. (Citizens of Goleta Valley v. Board of Supervisors of Santa Barbara County (1988) 197 C.A. 3d 1167, 1180.)

With respect to the proposed Mesquite LF, both the proposed site and Alternatives II, III, and IV all include development of the proposed LF on federal public lands. In any event, unless an adequate description of an alternative site or alternatives to a regional mega landfill are discussed, there can be no meaningful consideration of the ability of an alternative site to accomplish the basic objectives of the proposed project and at the same time reducing environmental impacts.

INADEQUATE DISCUSSION OF CUMULATIVE IMPACTS

722 In reaching our conclusion that the DEIS/EIR discussion of cumulative impacts of the proposed project is inadequate, we refer to the CEQA guidelines requirements for discussion of cumulative impacts.

Guidelines Sec. 15065 are specific with respect to cumulative impacts:

> 15065. Mandatory Findings of Significance.
>
> A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where any of the following conditions occur:
>
> (c) The project has possible environmental effects which are individually limited but cumulatively considerable. As used in this subsection, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. (emphasis added) (See also CEQA Sec. 21083 (b))

Guidelines Sec. 15130 (b) lists the following elements necessary for adequate discussion of cumulative impacts:

> (1) Either:
>
> (A) A list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency, or

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Response to Comment No. 722

The discussion of the environmental setting of the project already reflects existing projects affecting ground water usage and recharge. Thus, existing data takes into account the effect of existing ground water pumping for agricultural purposes, as well as existing facilities that reduce the amount of ground water recharge. (Draft EIS/EIR, pp. 3-26 - 3-45.) The Draft EIS/EIR discusses cumulative impacts to water resources, including ground water; this discussion considers the impact of other proposed projects in the area that may affect ground water levels within the basin. (See Draft EIS/EIR, pp. 4-209 - 4-210; see also responses to Comment Nos. 98, 509, 685, and 687.)

Contrary to the comment, the All-American Canal lining project is proposed and does not exist. The Draft EIS/EIR discusses this project in its analysis of cumulative effects. (Draft EIS/EIR, p. 4-207.)

The Draft EIS/EIR does not identify "ground water quality" as an impact that would be subject to cumulative effects. For further information regarding impacts to ground water quality, see responses to Comment Nos. 110, 203, 263, 412, 498, and 628.

The Draft EIS/EIR analyzes in detail the environmental setting with respect to biological resources. (Draft EIS/EIR, pp. 3-46 - 3-60, Appendices D-1 through D-6.) This analysis takes into account impacts from existing facilities in the region that affect biological resources. The project's impacts are analyzed by reference to this environmental setting.

The Draft EIS/EIR analyzes proposed projects that may, in conjunction with the proposed project, have a cumulative impact on biological resources. (Draft EIS/EIR, pp. 4-210 - 4-211.) As the Draft EIS/EIR notes, cumulative biological impacts are possible only to the extent the future projects may affect the Chuckwalla Bench desert tortoise population. The Draft EIS/EIR addresses potential cumulative effects to biological resources from the proposed Chocolate Mountain Regional Landfill, the Eagle Mountain Regional Landfill, and the American Girl Mining Complex. (Id.) Other proposed projects cited by the comment are either too speculative to be evaluated or would not affect the Chuckwalla Bench desert tortoise population. See also responses to Comment Nos. 98, 509, 685, and 687. The BLM will complete Section 7 consultation with the USFWS prior to issuing a Record of Decision for the proposed project and

(B) A summary of projections contained in an adopted general plan or related planning document which is designed to evaluate regional or areawide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency;
...Authority Sec. 21083, 21087 Publ. Resources Code (CEQA)

CEQA Guidelines Sec. 15355 explains what is meant by the term "cumulative impacts":

15355. Cumulative Impacts.
"Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or compound or increase other environmental impacts.
(a) The individual effects may be changes resulting from a single project or from a number of separate projects.
(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over time.

CEQA Guidelines Sec. 15358 defines the terms "effects" and "impacts":

15358. Effects.
"Effects" and "impacts" as used in these guidelines are synonymous.
(a) Effects include:
(1) Direct or primary effects which are caused by the project and occur at the same time and place.
(2) Indirect or secondary effects which are caused by the project and are later in time or further removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.
(b) Effects analyzed under CEQA must be related to a physical change.

We remind the Lead Agencies of the language of the courts regarding attempts to minimize discussion of cumulative impacts:

"A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, necessity for mitigation measures, and the appropriateness of project approval." (Citizens to Preserve Ojai v. County of Ventura (1985) 176 C.A. 3d 421, 431 [222 C.R. 247];

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Response to Comment No. 722 (Cont'd)

will incorporate any additional mitigation measures required by the Biological Opinion that will be issued by USFWS upon completion of the consultation process.

Regarding the adequacy of the project description, see responses to Comment Nos. 719 and 720.

Mountain Lion Coalition v. Fish and Game (1989) 214 C.A. 3d 1043, 1051; 263 C.R. 104.)

The concern of the Mountain Lion Court with respect to the importance of a serious cumulative impact analysis is seen in the following paragraph:

> While technical perfection in a cumulative impact analysis is not required, courts have looked for "adequacy, completeness, and a good faith effort at full disclosure." (Cal. Code Regs. tit. 14, Sec. 15151.) "A good faith effort to comply with a statute resulting in the production of information is not the same, however, as an absolute failure to comply resulting in the omission of relevant information."[emphasis in original] (Rural Landowners Assn. V. City Council (1983) 143 C.A. 3d 1013, 1022 [192 C.R. 325].) "Only by requiring the [sponsoring agency] to fully comply with the letter of the law can a subversion of the important public purposes of CEQA be avoided, and only by this process will the public be able to determine the environmental and economic values of their elected and appointed officials, thus allowing the appropriate action come election day should a majority of the voters disagree. (People v. County of Kern (1974) 39 C.A. 3d 830, 842 [115 C.R. 67].) (Mountain Lion Coalition v. Fish and Game (1989) 214 C.A. 3d 1043, 1052; 263 C.R. 104.)

In a lawsuit to challenge the adequacy of an EIR which was prepared after the Attorney General and a citizen's environmental group sued the City of Hanford for failing to prepare an EIR rather than a negative declaration for proposed construction of a coal-fired power plant, the Court of Appeal held that the eventual EIR was inadequate because it did not contain adequate information on several issues for an informed decision by decision-makers to approve the project. The Court found:

> The Guidelines require that an adequate cumulative impacts analysis include a list of projects producing related or cumulative impacts, a summary of the expected environmental impacts from those projects and a reasonable analysis of the cumulative impacts of relevant projects. (Guidelines, Sec. 15130.) (Kings County Farm Bureau v. City of Hanford (1990) 221 C.A. 3d 692, 729.)

The Kings County Farm Bureau Court stressed the duty of an EIR not to attempt to minimize the cumulative impacts of a project by limiting the discussion to the specific project rather than considering the combined "collectively significant" impacts of all related or relevant projects. The Court rejected the city of Hanford's acceptance of an EIR which attempted to minimize cumulative impacts on groundwater and air quality, two issues inadequately discussed in the Mesquite DEIS/EIR.

The Kings County Farm Bureau decision noted that the with respect to discussion of cumulative impacts, the courts:

> must interpret the Guidelines to afford the fullest possible protection to the environment. (Friends of Mammoth v. Board of Supervisors (1972) 8 Cal. 3d 247, 259-260 [104 Cal. Rptr. 761, 502 P.2d 1049].) One commentator has addressed the purpose of the cumulative impacts analysis: "One of the most important environmental lessons evident from past experience is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant, assuming threatening dimensions only when considered in light of the other sources with which they interact. Perhaps the bast example is air pollution where thousands of relatively small sources of pollution cause a serious environmental health problem. (Kings County Farm Bureau, supra, at 720)
>
> "This judicial concern often is reinforced by the results of cumulative environmental analysis; the outcome may appear startling once the nature of the cumulative impact problem has been grasped." (Selmi, The Judicial Development of the California Environmental Quality Act (1984) 18 U.C. Davis L. Rev. 197, 244, fn. omitted.) (Kings County Farm Bureau, supra, at 720.)
>
> We agree with the foregoing assessment of a cumulative impacts analysis. We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approved of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF's "ratio" theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for cumulative impacts analysis is defined by the use of the term "collectively significant" in Guidelines section 15355 and the analysis must assess the collective or combined effect of ... [the project]. The EIR improperly focused upon the individual project's relative effects and omitted facts relevant to an analysis of the collective effect this and other sources will have on air quality. (Kings County Farm Bureau v. City of Hanford (1990) 221 C.A.3d 692, 720, 721; 270 C.R. 650.)

DEIS/EIR discussion of cumulative impacts of groundwater usage is inadequate because it fails to include discussion of the amount of recharge to the Amos-Ogilby basin which has already been eliminated by past lining of the Coachella and All American Canals, the amount of groundwater pumped for agricultural and other uses in Mexico, the potential water requirements for development of the New Town at the Felicity Specific Plan Area as described in the Imperial County General Plan Update, in addition to extractions in excess of artificial recharge programs proposed for the basin, all of which will have impacts over the 100 year life of the proposed project in addition to the potential delivery of 16,000 AF/Y to the Mission Band of Indians in San Diego County (DEIS 4-208).

The DEIS/EIR cumulative impacts discussion related to potential leachate contamination of groundwater resources referenc-

es calculations based on incorrect rainfall data, ignores US EPA discussions of expected degradation of landfill liner systems, and pollutant collection and removal systems which will result in inevitable leakage. Proposed vadose zone monitoring wells are spaced too far apart to detect fingers or shots of pollution in the unsaturated vadose zone that will originate from point source leaks/releases of leachate and VOC associated with LFG condensate, fails to consider the additional potential impacts associated with leachate production accompanying enhanced LFG generation.

DEIS/EIR discussion of cumulative impacts of the proposed action on biological resources is inadequate because it fails to consider the incremental cumulative impacts of the proposed project in addition to the impacts of the existing Mesquite Mine adjacent to the proposed project site, the impacts of other mines in the area, potential Chocolate Mountain Regional LF, past, present and future impacts of OHV and other recreational activities in the vicinity, in addition to rail and roadway impacts and habitat fragmentation, development of the New Town of Felicity, the aerial gunnery range adjacent to the proposed project site. DEIS fails to consider impacts of noise, vibration, and night lighting on physiology, behavior and social interactions of wildlife in the vicinity. The impacts of various component parts of the proposed project are discussed separately rather than as cumulative impacts of the project together and in conjunction with the impacts of other past, present, and reasonably anticipated future projects in the area.

It is precisely because so much information is missing from the DEIS/EIR related to proposed wildlife related mitigation measures that the piecemealed discussion of CEQA required cumulative impacts discussion and the DEIS/EIR conclusions about cumulative impacts on wildlife are unwarranted. The following is typical of the DEIS/EIR cumulative impacts discussions of 4 parts of the proposed project.

> The mitigation measures identified above and to be developed by BLM in consultation with USFWS and CDFG, would mitigate the potential landfill site-related [or other project component part] impacts, such that impacts would not be significant. (DEIS 4-39.)

Because the project description is incomplete, the DEIS cumulative impacts discussion fails to include localized impacts of truck haul routes to get MSW residue from existing transfer stations/MRFs to rail loading facilities in urban areas prior to rail haul to the proposed LF site.

USE OF "RATIO-THEORY" FOR SIGNIFICANCE OF IMPACTS IS INAPPROPRIATE

723 The Farm Bureau Court (Kings County Farm Bureau v. City of Hanford (1990) 221 C.A. 3d 692 at 719-721.) rejected the "ratio theory" put forth by the project proponent in that case. Nevertheless, the "ratio theory" was resurrected by the DEIS/EIR for Mesquite LF in its discussion of cumulative impacts on biological resources where DEIS/EIR states that:

The proposed landfill would similarly not be expected to

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Response to Comment No. 723

With respect to wildlife movement patterns, the project could have an impact on such patterns if it cut off or impinged upon an identified wildlife movement corridor. As the Draft EIS/EIR states, however, the project site does not provide significant habitat for animal species with restricted distribution. Moreover, the surrounding area does not contain existing impediments to wildlife movement. For this reason, the project will not impede the movement of wildlife through the area.

With respect to habitat fragmentation, please see response to Comment No. 529.

The comment states that this analysis improperly relies on the "ratio theory" to dispense with the project's contribution to cumulative impacts to wildlife movement and habitat fragmentation. The comment is incorrect. The so-called "ratio theory" arises out of the Court's decision in Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App .3d 692 [270 Cal.Rptr.650]. In Kings County Farm Bureau, the EIR for a proposed coal-fired cogeneration power plant concluded that the plant's air pollutant emissions would be insignificant because regional ozone levels were already bad, and that the incremental additions from the project would be modest in relation to overall pollution levels. The Court rejected such an approach, stating: "The EIR's analysis uses the magnitude of the current ozone problem in the air basin in order to trivialize the project's impact." (221 Cal.App.3d at 718 [270 Cal.Rptr.650].)

Elsewhere, the Court rejected the "ratio" theory relied upon by the EIR, stating that, under such a methodology, "the greater the overall problem, the less significance a project has in a cumulative impacts analysis." Under a proper approach, in contrast, an EIR should assess "the collective or combined" effect of both the project in question and other foreseeable projects. In other words, the more severe existing environmental problems are, the lower the threshold for treating a project's cumulative impacts to be significant. (221 Cal.App.3d at 718-721 [270 Cal.Rptr.650].)

The Draft EIS/EIR does not rely on a "ratio" theory for purposes of evaluating the project's impacts on biological resources. Unlike the situation in Kings County Farm Bureau, the Draft EIS/EIR does not trivialize the project's impacts by pointing to the magnitude of the loss of habitat that has already occurred. Rather, the Draft EIS/EIR properly

Response to Comment No. 723 (Cont'd)

focuses on the incremental loss of habitat associated with the project, in relation to the range of abundance of the habitat. Consistent with Kings County Farm Bureau, the incremental loss of this habitat must be understood in light of general, regional conditions. Thus, for example, if such habitat were relatively rare, then the loss of this habitat might well be significant. In this case, however, the habitat is both common and widespread. No wildlife corridors will be affected. No habitat patches will be fragmented. The amount of affected habitat is relatively small. For all of these reasons, the incremental loss of this habitat is considered insignificant.

The comment states that the Draft EIS/EIR does not contain substantial evidence to show that the mitigation measures will avoid impacts to the desert tortoise. The Draft EIS/EIR does contain such evidence. See responses to Comment Nos. 197, 320, 323, 336 through 348, 350, 352, 353, 359, 429, 514 through 518, 527, 529, 531, and 533 through 546.

The comment states that the Draft EIS/EIR "piece-meals" the analysis of the project's air quality impacts. The comment is incorrect. The Draft EIS/EIR evaluates the project's air quality impacts based on where the impacts will occur: at the landfill site; and within different air basins along the rail transportation route. (Draft EIS/EIR, pp. 4-78 - 4-105; Appendix E.) The Draft EIS/EIR appropriately aggregates emissions from the project within each of the three air basins that will be affected by the project. (Draft EIS/EIR, pp. 4-88 - 4-91, esp. Table 4-16; see also response to Comment No. 21.

The comment states that the Draft EIS/EIR improperly relies on the ratio theory to understate the project's air quality impacts. The comment is incorrect. This Final EIS/EIR, based on conservative assumptions, calculates both the direct and the indirect emissions associated with the project. These emissions are appropriately broken down on an air basin-by-air basin basis. To place the significance of these emissions in context, this Final EIS/EIR compares the emissions contributed by the project with the overall inventory of emissions within each affected air basin.

The Kings County Farm Bureau case does not proscribe such an analysis. Rather, the Kings County Farm Bureau case holds that the analysis should

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 723 (Cont'd)

not rely solely on these calculations in concluding that the project's emissions are insignificant. (221 Cal.App.3d at 718 [270 Cal.Rptr.650].)

This Final EIS/EIR does not, however, rely solely on these calculations to demonstrate that the project's emissions are insignificant. Instead, this Final EIS/EIR evaluates these emissions in relation to other air quality improvements and mitigation measures associated with the project, and in the context of the physical characteristics of the affected air basins. For example, this Final EIS/EIR notes that the project will result in improved air quality in SOCAB. Reduced ozone concentrations in SOCAB, in turn, will result in reduced levels of ozone transported from SOCAB into the Coachella Valley and Imperial County. The reduction in transported ozone will counterbalance any local increase in ozone concentrations associated with project-related trains traveling through the Coachella Valley and Imperial County. Similarly, the project incorporates a variety of mitigation measures (e.g. PM_{10} controls, emissions offsets) that will further reduce the project's emissions. Thus, as set forth in this Final EIS/EIR, any increase in ROG, NO_x or PM_{10} emissions will be negligible and/or will be counterbalanced by project-related improvements in air quality. This Final EIS/EIR acknowledges one exception to this general rule; it states that the project will contribute to cumulatively significant PM_{10} emissions within Imperial County. In short, the air quality analysis in this Final EIS/EIR does not depend on the "ratio" theory criticized by the Court in Kings County Farm Bureau.

Regarding health risks to employees, see response to Comment No. 632.

significantly interrupt wildlife movement patterns or result in additional habitat fragmentation (the local habitat is already fragmented by Mesquite Mine and SR 78) because wildlife would be able to move around the proposed area to get to the other side. ... Impacts would not be significant. (DEIS 4-22, 4-23.)

Unmitigated impacts to the desert tortoise would be significant (DEIS 4-26), but the DEIS/EIR cites no specific references to indicate that any of the Applicant's proposed mitigation measures would or have been successful or to indicate what the impacts of proposed mitigation measures on desert tortoise individuals or populations have been or may be, if implemented. Indeed, details of many proposed mitigations are not included in the DEIS/EIR for public review and comment. In discussion of secondary impacts on desert tortoises DEIS 4-26 cited BLM 1989, however the reference section contains no such reference.

The DEIS/EIR attempts to piecemeal the discussion of air quality impacts of the proposed project when it states that: "Landfill and transportation impacts on air quality are analyzed separately because they are controlled by different owners and regulatory authority." (DEIS 4-66.) Further use of the ratio theory to minimize impacts is evidenced by statements such as "Although small compared to total emissions in SOCAB (DEIS 4-85); "concentration is much lower than background and hence, would not noticeably contribute to exceedences caused by SOCAB transport" (DEIS 4-88); and see Table 4-14; "based on relatively small increases ...the Proposed Project would not result in significant adverse air quality impacts in the Coachella Valley." (DEIS 4-88.) "These train emissions would be a small contribution to the baseline inventory..." (4-88.) On and on it goes. Accordingly, we believe that the DEIS/EIR discussion of cumulative impacts of the proposed project in addition to the existing and reasonably anticipated future impacts is erroneously predicated on the use of the ratio theory rejected by the King's County Farm Bureau court in its discussion of air quality impacts.

Furthermore, the DEIS/EIR fails to discuss the health risks to employees working at the proposed project either as a separate issue or in combination with the cumulative impacts from past exposures to materials in the air which are known to contribute to adverse health impacts.

DEIS/EIR FAILS TO ADEQUATELY ANALYZE AREAS OF CONTROVERSY RELATED TO IMPACTS OF PROPOSED PROJECT ON (a) THREATENED DESERT TORTOISE; (b) LEACHATE GENERATION RESULTING FROM ENHANCED LFG GENERATION; (c) LONG-TERM INTEGRITY OF PLASTICS COMPONENTS OF LINED LANDFILL, COLLECTION SYSTEMS AND MONITORING SYSTEMS and (d) SITING AND CONSTRUCTION OF ANY ADDITIONAL TRANSFER STATIONS/MRFs RELATED TO PROPOSED LANDFILL PROJECT

724 The DEIS/EIR is inadequate because it fails to include information on the impacts of human activities on the desert tortoise, including on its survival, behaviors, and social interactions. There have been numerous studies of impacts on

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 724

See responses to Comment Nos. 110, 197, 336 through 348, 352, 353, 514 through 518, 527, 533 through 546, and 718.

desert tortoise, including a summary of those impacts and studies in the 1993 USFWS Draft Recovery Plan for the Desert Tortoise (Mojave Population).

DEIS/EIR fails to cite references or experts who indicate the utility and benefits of Applicant's proposed mitigation measures related to desert tortoises. It further ignores expert opinions about problems associated with similar mitigation measures for the Eagle Mountain Landfill. (Boarman and Stebbins cited in Charpied:8, 9; and by Moskowitz 1994.) What studies show the effectiveness and impacts of proposed mitigation measures on behaviors, survival, social interactions and reproductive success of the desert tortoise? What are the cumulative impacts of OHV activity, ravens, military activity, mining activity, rail and roadway routes of travel and disease on desert tortoises, their physiology, social interactions, behavior, survival, and reproductive success?

DEIS/EIR is inadequate because it fails to provide discussion of the controversies associated with the potential for significant leachate generation and its potential impacts on groundwater pollution as a consequence of enhanced LFG generation and the controversy surrounding the relative merits of maintaining a dry lined landfill vs. landfill where increased moisture contributes to more rapid generation of both leachate and landfill gas.

The DEIS/EIR is inadequate because it fails to discuss the controversies surrounding the long term viability and inevitable degradation of the plastics and FMLs which form the liner system, leachate collection system, landfill gas collection system, and monitoring wells required by US EPA's final rule for MSWLFs.

DEIS/EIR is inadequate because it fails to discuss issues of controversy associated with siting of transfer stations/MRFs in urban, suburban or rural areas and for the means of getting MSW residue from such transfer stations/MRFs to rail loading facilities, including in downtown Los Angeles (DEIS 4-72).

CEQA Guidelines Sec. 15151 states that: "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of the environmental consequences." The EIRs must be "organized and written in such a manner that they will be meaningful and useful to decisionmakers and to the public." (Pub. Res. Sec. 21003 (b).) To be legally sufficient an EIR must be adequate, complete, and represent "a good faith effort at full disclosure. Analysis of the environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible." (Remy, 180)

> Although disagreement among experts does not render an EIR inadequate, the report should summarize the main points of disagreement. [CEQA Guidelines Sec. 15151] The absence of information in an EIR, or the failure to reflect disagreement among the experts, does not per se constitute a prejudicial abuse of discretion. (Pub. res.

Sec. 21005.) A prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process. (Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 C. 3d 376, 403-405; 253 C.R. 426.) (Kings County Farm Bureau v. City of Hanford (1990) 221 C.A. 3d 692, 712; 270 C.R. 650.)

DEIS/EIR FAILS TO SUPPORT WITH EVIDENCE CONCLUSIONS THAT IMPACTS WILL BE INSIGNIFICANT OR NONEXISTENT

725 The DEIS/EIR is inadequate because it fails to cite references or scientific studies to support its assertions about performance of the various components of a lined landfill, leachate and gas collection systems and monitoring well systems for the 100 year life of the proposed project and for the decades and centuries of post-closure maintenance required.

Additionally, ar repeatedly noted elsewhere in these comments, the DEIS/EIR fails to cite references or studies which indicate the success or potential successes of the Applicant's proposed mitigation measures, several of which were employed at the Mesquite Mine site, apparently with limited success (Watkins 1994). Unless there ius evidence that proposed mitigation measures are beneficial, there is no basis for DIES/EIR to conclude that impacts can be mitigated to insignificance.

The decision in Kings County Farm Bureau v. City of Hanford discussed earlier suggests detailed analyses and reliance on concrete substantial evidence will be required to uphold determinations that project impacts are insignificant where such impacts are not minor or trivial. Specific examples of missing or inadequate discussion of impacts which the DEIS/EIR concluded to be insignificant, but for which evidence is lacking to support such a conclusion include, but are not limited to the following: impacts on desert tortoise; groundwater resources; transport of MSW residue from transfer stations/MRFs to intermodal facilities in Los Angeles; noise; recreation, etc..

726 DEIS/EIR IS INADEQUATE BECAUSE IT FAILS TO INCLUDE DETAILS OF MITIGATION MEASURES AND MITIGATION PLANS FOR PUBLIC REVIEW

This discussion is detailed elsewhere in these comments.

TO CORRECT DEFICIENCIES AND INADEQUACIES OF DEIS/EIR A REVISED DRAFT OR DRAFT SUBSEQUENT EIS/EIR IS REQUIRED

727 The corrections and additional material necessary for an adequate project EIRs/EIR are not minor but rather substantial and therefore require a Revised or Subsequent DEIS/EIR to be recirculated as would be required for a draft EIR under CEQA Guidelines Sec. 15087 as cited in Sec. 15163(c).

The corrections constitute issues of substantial importance and are believed to have "one or more significant effects not discussed previously in the EIR." "Significant effects previously examined will be more severe than shown in the EIR" and "mitigation

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 725

Please see responses to Comment Nos. 31, 110, 197, 224, 336 through 348, 352, 353, 357, 514 through 518, 527, 533 through 546, 585, 587, 588, 589, 643, 658, 666, 693, 694, and 718.

Response to Comment No. 726

See responses to Comment Nos. 13, 335, 339, and 349.

Response to Comment No. 727

The comment requests that the County and BLM recirculate the Draft EIS/EIR. Under CEQA, if, subsequent to public review and interagency consultation but prior to final certification, a lead agency adds "significant new information" to an EIR, the agency must issue new notice and must recirculate the EIR for additional commentary and consultation. (Pub. Resources Code, § 21092.1.) The California Supreme Court recently adopted the following test for determining when recirculation is required:

> "[T]he addition of new information to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a *substantial* adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. * * * [R]ecirculation is not required where the new information added to the EIR 'merely clarifies or amplifies.. or makes insignificant modifications in.. an adequate EIR."
>
> (Laurel Heights Improvement Association of San Francisco, Inc. v. Regents of the University of California ("Laurel Heights II") (1993) 6 Cal.4th 1112, 1129-1130 [26 Cal .Rptr. 2d 231] (emphasis in original).)

The Court provided several examples of how the above-stated principles should be applied in practice:

> "[R]ecirculation is required, for example, when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new

measures or alternatives which were not previously considered in the EIR would substantially lessen one or more significant effects on the environment." To ignore the need for preparation of a Revised Draft EIS/EIR Subsequent EIR because the "information of substantial importance" is not "new", but rather is existing information which is readily available, would be to circumvent the purposes of CEQA as well as the intent of the Legislature. Such "new information" includes (a) available information, even including information in some of the technical appendices for the DEIS, but which has been ignored by the preparers of the DEIS, and (b) information available from published sources and technical or biological experts but not referenced by the DEIS/EIR; (c) monitoring data available but not included in DEIS or Appendices; (d) calculations based on correct site specific data; (e) complete description of the whole of the proposed project and impacts of complete project.

The DEIS/EIR as it exists suffers from too much missing information, too much out-dated information, an incomplete discussion of the "whole of the project", and omits site specific information related to the existing environmental conditions (environmental setting) to satisfy the requirements of CEQA. The corrections and additional material necessary for an adequate EIS/EIR are not minor but rather substantial and therefore require a Revised or Subsequent DEIS/EIR to be recirculated for the full comment period as would be required for a draft EIR under CEQA Guidelines Sec. 15087 as cited in Sec. 15163(c). No public purpose could be served by failing to prepare a Revised or Subsequent DEIS/EIR where the lead agency has failed to meet the minimum requirements for an adequate EIS/EIR. (Remy, 263, citing judicial decisions "in which courts ordered additional CEQA analysis pursuant to Public Resources Code Sec. 21166 before the initial projects were approved. (emphasis in Remy.))

When significant new information is added to an EIR after notice is given (CEQA Guidelines 21092.1) (and such as will be necessary to correct inadequacies in the present DEIS/EIR including failure to analyze the impacts caused by siting and construction of transfer stations/MRFs, increased leachate generation associated with enhanced landfill gas generation, and cumulative impacts on desert tortoise), the deficient DEIS/EIR must be recirculated in compliance with Pub. Res. Sec. 21166. Under that statutory standard for recirculation:

> "There cannot be responsible decision-making when data appears in the final EIS without being subject to the critical evaluation that occurs in the draft stage. There are two dangers that can occur when information appears in the final EIS for the first time: (1) the ultimate decision-makers will believe that there is no controversy due to the lack of critical comment; and (2) objective errors without being red-flagged would go unnoticed. It is for these reasons that [an agency regulation] provides: 'A supplemental statement is to be processed in the same manner as a new environmental statement.' (23 C.F.R. Sec. 1.38, p.20 (1974).) (Sutter

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN DIEGO CHAPTER (CONTINUED)

Response to Comment No. 727 (Cont'd)

> mitigation measures proposed to be implemented; (2) a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, *but which the project's proponents decline to adopt*; or (4) that the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless."
>
> (Id. at 1130 [26 Cal.Rptr.2d 231] (citations omitted) (emphasis added).)

The comment lists 13 issues which, in the commentor's opinion, constitute "significant new information" triggering the duty to recirculate the Draft EIS/EIR. Each of these 13 issues are raised elsewhere in her comments.

The responses to comments does contain new information, analysis, clarification and/or restatement regarding each of these 13 issues. By itself, however, responding to public comments on the Draft EIS/EIR does not trigger the duty to recirculate the Draft EIS/EIR. Rather, the new information added to the EIR must disclose information falling into one or more of the categories identified by the Supreme Court in the Laurel Heights II decision. BLM and the County do not believe that the information in the responses to comments falls into one or more of these categories. Specifically, as a result of the comments and responses to those comments: no new substantial environmental impacts have been raised; no substantial increase in the severity of an environmental impact has been identified; no feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project has been identified and rejected; and the Draft EIS/EIR has not been shown to be fundamentally flawed, inadequate and conclusory. Accordingly, recirculation of the Draft EIS/EIR is not required.

Sensible Planning, Inc. v. Board of Supervisors (1981) 122 C.A. 3d 813, 822 [176 C.R. 342])

Supplemental information, which has not been processed in the same manner as the draft EIS, cannot resurrect a deficient impact statement. [Citation.] The failure to include [the information] in the draft impact statement denied the plaintiffs the 'opportunity to test, assess, and evaluate the data and make an informed judgement as to the validity of the conclusions to be drawn therefrom.'" [Citations.] (See also I-291 Why? Association v. Burns (2d Cir. 1975) 517 F.2d 1077, 1081; State of Cal. v. Bergland (E.D. Cal. 1980) 483 F.Supp.465,495; Essex Cty. Preservation Ass'n v. Campbell (1st Cir. 1976) 536 F.2d 956, 960-961; Natural Resources Defense Council, Inc. v. Morton (D.D.C. 1972) 337 F.Supp. 170, 172.) ...where "substantial changes" in the EIR are made, recirculation is required. [State of Alaska v. Carter (D. Alaska 1978) 462 F.Supp.1155, 1164.) (Sutter Sensible Planning, Inc. v. Board of Supervisors (1981) 122 C.A.3d 813, 822, 823; 176 C.R. 342.)

In addition to responses to the specific comments and questions in these comments on the DEIS/EIR, corrections of the above recited inadequacies of the DEIS/EIR, the Draft Revised or Draft Subsequent EIR to be recirculated for review should contain at a minimum the following discussions, including but not limited to the following:

1. Siting constraints and difficulties related to construction of necessary new transfer stations/MRFs necessary for project;
2. Impacts associated with construction of future transfer stations/MRFs.
3. Impacts associated with truck haul of MSW residue from transfer stations/MRFs to rail loading centers.
4. Potential impacts associated with increased leachate generation which would accompany enhanced LFG generation.
5. Complete groundwater monitoring data for well fields in vicinity of and including production wells for Mesquite Mine.
6. Discussion of potential causes of groundwater degradation observed in Mesquite Gold Mine monitoring wells and production wells.
7. Correct and up-to-date rainfall data and corrected calculations for leachate generation based on rainfall data from Mesquite Mine site.
8. Limitations of vadose zone monitoring wells to detect leachate or landfill gas pollution originating from point source leaks under the landfill footprint.
9. Concerns of biologists about the relative ability or inability of proposed mitigation measures to prove beneficial in mitigating adverse project and cumulative impacts on desert tortoise. Conclusions about the potential success and/or utility of proposed mitigation measures should be included in DEIS/EIR text.
10. Limitations of the plastic materials of the landfill liner system, leachate collection system, landfill gas collection system, and monitoring systems to retain their integrity for

the life of the project when exposed to the temperatures, chemical interactions, weight and aging stresses of the proposed landfill.

11. Details of proposed Mitigation measures and/or mitigation programs and monitoring programs.
12. Full discussion of financial assurance program.
13. Discussion of an Alternative site which does not include a portion of a desert tortoise relocation area.

CONCLUSIONS

The Draft EIS/EIR is woefully inadequate for the following reasons, including but not limited to:

1. The Draft EIS/EIR is inadequate and fails to meet the minimum standards required by NEPA and CEQA environmental review and does not satisfy requirements for full disclosure that would facilitate informed decision making.

2. Important monitoring information has been withheld from the Draft EIS/EIR and its technical Appendices.

3. Monitoring information (eg. for rainfall) is inconsistent with given volumes of the appendices or (for groundwater quality) mission from both DEIS and appendices.

4. Numerical data used in subappendices is not always consistent with data in the text of the main appendix.

5. Discussion in the DEIS is not always consistent with data and text of the technical appendices.

6. DEIS is internally inconsistent in many places.

7. DEIS discussion of alternatives is incomplete and inadequate because it fails to supply meaningful biological resources information about Alternative III, or adequate information about minimizing the impacts of the No Action alternative through maximizing or exceeding AB 939 required implementation of waste reduction techniques.

8. DEIS discussion of Cumulative Impacts of the proposed project is not consistent with CEQA Guidelines requirements.

9. DEIS fails to include full disclosure of information (including potential impacts) about aspects of the proposed enhanced LFG generation option discussed in air quality sections, but not under water resources sections.

10. DEIS fails to provide adequate discussion of mitigation measures essential to detect point source leakage of leachate, LFG, and VOCs in vadose zone before it reaches groundwater.

11. DEIS fails to provide full disclosure about potential problems associated with the proposed lined landfill technologies, and

the nature of perpetual maintenance and ultimate need for monitoring and remediation during centuries after closure.

12. DEIS fails to provide full disclosure of all relevant mitigation measures and plans for public review and comment.

13. DEIS is inadequate because it fails to provide full disclosure of controversies associated with effectiveness of mitigation measures proposed re desert tortoises.

14. DEIS is inadequate because it fails to discuss impacts associated with siting, construction, and use of transfer stations/MRFs other than those already existing, or to discuss impacts of truck haul routes from the transfer stations/MRFs to rail intermodal facilities in Los Angeles or elsewhere.

15. DEIS Alternative III, Alternative site is inappropriate because it includes a portion of the Vista Well Desert Tortoise Relocation Area so this site could increase rather than decrease environmental impacts on a threatened species. Such an alternative site choice negates one of the Applicant's proposed mitigation measures.

RECOMMENDATION

For the above reasons and others described in our comments, the Sierra Club, San Diego Chapter recommends that a Draft Revised or Supplemental EIS/EIR be prepared to include all missing information mitigation plans, resolve inconsistencies, include discussion of alternatives and cumulative impacts in the manner required by NEPA and CEQA, and answer all questions. It is further recommended that the Draft Revised EIS/EIR be released for public review and comment for another full 90 day period.

The importance of ample time to review a revised and corrected Draft EIS/EIR cannot be underestimated for a project of the magnitude and duration of the proposed 20,000 ton/day landfilling of municipal solid waste residue for a 100 year period, and the need for perpetual care after closure. Any approval of such a project will have far reaching impacts on not only the environment of Imperial County, but on future generations of County residents.

Sierra Club
San Gorgonio Chapter

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July 4, 1994

Thomas Zale
BLM
1661 South 4th Street
El Centro, CA 92243

BY FAX, TOTAL OF 6 PAGES INCLUDING COVER PAGE

Re: Comments on Draft EIR/EIS for Mesquite Regional Landfill

Dear Mr. Zale:

I am writing as Conservation Chairman of the Tahquitz Group of the Sierra Club to make the following comments on the above-referenced document, hereinafter referred to as the DEIR.

SOURCE OF WASTE AND EFFECTS ON HAULING EMISSIONS

728 The DEIR is inadequate in its estimation of hauling emissions. On the one hand the project "proposes to make the MSW residue disposal capacity planned for the proposed Mesquite Regional Landfill available to pubic agencies throughout Southern California (emphasis added), page 2-56. On the other hand, the document calculates hauling emissions on the assumption that "The distances and route for this analysis are based on the railroad - intermodal facility being at the LATC near downtown Los Angeles...east to Indio and southeast to the proposed landfill" (p. 4-69 and Figure 3-23). These two statements are not equivalent.

Either the source of waste must be restricted to the LATC assumption or the estimated air emissions from hauling must be revised to reflect waste coming from "throughout Southern California."

Since hauling emissions are the major source of air pollution from this project, bringing in waste from San Diego or other more distant/ difficult-to-serve-by-train area could cause a big difference in air quality impacts.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER, SIGNED BY JOAN TAYLOR, CHAIRMAN, DATED JULY 4, 1994.

Response to Comment No. 728

The two statements in the Draft EIS/EIR are consistent. As set forth in the Draft EIS/EIR, initial MSW residue volumes destined for the Mesquite Regional Landfill are expected to be collected and loaded onto trains either at Southern Pacific's existing City of Industry intermodal, or at the LATC. Both of these intermodals already exist. They have adequate capacity to serve the Mesquite Regional Landfill, even at the maximum disposal rate of 20,000 tons per day. (Draft EIS/EIR, p. 3-66.) Both intermodals are located on the rail haul route shown in Figures 3-22 and 3-24 of the Draft EIS/EIR.

The Draft EIS/EIR's air quality analysis assumes that the project's train-related emissions will originate at the LATC. (Draft EIS/EIR, p. 4-69.) This assumption is conservative because the initial volumes of MSW residue may instead be loaded onto trains at the City of Industry intermodal, which is closer to the Mesquite Regional Landfill (and thus would generate less train-related emissions) than the LATC.

The Applicant currently has no contracts with any jurisdiction(s) to receive MSW at LATC or any other existing or proposed intermodal. Prior to any jurisdiction entering into a contract with the Applicant for export of MSW to Imperial County, the exporting jurisdiction will exercise discretion thus triggering CEQA. For example, an exporting jurisdiction will be required to enter into a contract with the Applicant; that contract would be defined as a "project" under CEQA for which environmental review may be required. (Public Resources Code section 21065). If a new transfer station or intermodal were proposed for construction, that approval would, in most circumstances, require a discretionary approval for which environmental review may be required. Analyzing air quality impacts that might result from "bringing in waste from San Diego or other more distant/difficult-to-serve-by-train area" would be purely speculative and the BLM and Imperial County have determined that such speculative analysis must occur in the context of contract approvals, project applications, or other discretionary approvals.

GROUNDWATER PROTECTION

729 The DEIR is misleading in its discussion of groundwater and its protection. First, the DEIR implies that the nearly impermeable substrate under the site affords greater protection for groundwater resources than would a more permeable layer. This poses some unanswered questions. Is the substrate 100% impermeable? Or are there a few unknown fissures that could cause the groundwater to migrate in unexpected directions and to great distances? The rock substrate has some likely faults identified; what about those that have not been identified?

FAULTING AND SEISMICITY

730 The discussion (see P.3-14 ff.) of faulting and seismicity in the area of the site fails to provide the assurance that is needed in regard to this important issue. Specifically, the text alludes to "the earthquakes plotted closest to the site include two events recorded at latitude 33.000, longitude 115.00," the exact coordinates of the site. However, the DEIR map showing recent quakes signifies but one event. The text goes on at length to explain why it feels the recorded location of these earthquakes should be discounted, and bases its calculations of peak horizontal accelerations on quakes occurring nine miles from the site.

While it is true that the recorded location of these quakes may be erroneous, it is also very possible that they may be correct. Shouldn't the DEIR err on the side of caution, rather than totally discount these two events?

GROUNDWATER PROTECTION

731 The discussion of distance from waste to groundwater and the mitigations proposed for protection of groundwater are misleading and inadequate. For example, throughout the discussion of groundwater at 3-27 ff., at 3-23 and elsewhere, the implication is that the landfill would be elevated a hundred feet or more above the groundwater basin. But when it comes to mitigations, the only required separation from groundwater is 5 feet! See at S-20 "A minimum five-foot separation between the highest anticipated level of underlying ground water and the waste shall be ensured." Five feet is practically no margin for error. Once a leak is detected, it would more than likely have already infiltrated the groundwater. The DEIR is inadequate, internally inconsistent and misleading on this critical issue.

CHARACTERIZATION OF WASTES/COVER MATERIALS 2-20

732 The DEIR fails to adequately characterize the wastestream proposed to enter the landfill. Supposedly the project is a to be a Class III non hazardous municipal solid waste landfill. Yet at S-20 and

2

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER (CONTINUED)

Response to Comment No. 729

Please see response to Comment No. 136.

Response to Comment No. 730

Figure 3-9 has been corrected to show that both earthquakes fall on exactly the 115 degree west and 33 degree north longitude and latitude lines, respectively. This information is based on data from the U.S. Geological Service (USGS). The data for these two earthquakes was included for the public review even though their identified location is arbitrary at best. In fact, there is no evidence of any fault activity in the area where these earthquakes are plotted. The discussion of regional seismicity in Section 3.1.1 of the Draft EIS/EIR is the result of an extensive investigation of the potential for seismic activity in the area. These investigations have provided no indication of seismic activity in the location of the earthquakes referred to by the commentor. Therefore, the analysis in the Draft EIS/EIR is conservative in its evaluation of potential impacts due to faulting and seismicity.

Response to Comment No. 731

The reference to the 5-foot separation between the highest anticipated level of underlying ground water and the waste was meant to restate state regulations. This is a bit misleading, however, because the actual distance between ground water and the bottom of the landfill would always be at least 100 feet. This is fully discussed in Draft EIS/EIR, Section 2.1.3 concerning landfill construction and the water resources mitigation measures contained in Section 4.1.2.3.

Response to Comment No. 732

Landfilling is only one of many ways that offsets could be obtained by diverting agricultural material from burning. Green material has been a component of MSW disposed at Class III landfills for years. It is not anticipated that the agricultural plant material would contain sufficient levels of pesticides or other chemicals to be considered a hazardous waste, because such material could not be burned without special permits from the ICAPCD. Any screening for hazardous materials that may be

Response to Comment No. 732 (Cont'd)

required for any component of MSW entering the proposed landfill would be established by the LEA and CIWMB as part of the Solid Waste Facilities Permit.

elsewhere, the text alludes to "agricultural plant material would be accepted at the proposed regional landfill." This material would be potentially hazardous if it has been laced with pesticides or herbicides, but the DEIR provides no assurance that this waste would be screened/tested for hazardous residues.

733 Also, would the project screen incoming waste loads for nuclear radiation?

FLOOD CONTROL PROTECTION

734 It is especially important that a landfill of this magnitude be protected from infiltration from desert storms, which can be of an extreme intensity. The operational life of the project is proposed to be 100 years, with a post closure monitoring period of from 30 to 60 years. Ostensibly, the intent would be to keep the "mound" of 600 million tons of waste intact for several hundred years, and impermeable to infiltration by storms for as long as various components of the waste have the potential to produce hazardous leachate or gases. Then how come the proposal only calls for flood control protection sized for a 100 year storm?

735 Additionally, the intermodal facility has the potential for contaminating the site because of the fuels and lubricants spilled there. However runoff containment and treatment is proposed only "for the first 0.1 inches of rainfall..during any storm event" for this facility. Why so little protection?

POTENTIAL FOR MASS WASTING

736 The DEIR gives short shrift to the issue of liquefaction and induced landsliding, see 3-23. However, given the lack of adequate flood protection and the lack of adequate separation between the wastes and groundwater, the potential for mass wasting of the landfill is great. This issue needs to be addressed.

ALTERNATIVES ANALYSIS

737 The DEIR consistently (at S-9, S-18, S-21, S-31,2 and 3, p 2-76, 3-149, and 4-166) fails to evaluate the impacts of the no action alternative. Only impacts on air quality and water consumption are given. Yet the analysis p.3-149 and 4-66 admits that "In the No Action Alternative, trucks would transport all of the MSW residue to new landfills in remote portions of the South Coast Air Basin... Alternatively, MSW residue would be hauled to other regional landfills." The data is available to assess impacts of these scenarios. Environmental review has taken place on many of these projects and the documents can be used to describe the likely impacts of the no action alternative on the affected resources.

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER (CONTINUED)

Response to Comment No. 733

Radioactive wastes are disposed of at special waste disposal facilities. These types of waste are subject to very close tracking and disposal requirements and, therefore are rarely disposed of as MSW. Further, since the proposed Mesquite Regional Landfill would not accept MSW residue that has not first undergone sorting at transfer stations/MRFs to remove hazardous materials and recyclables, there is even less of a chance that any radioactive wastes would arrive at the landfill for disposal. Nevertheless, as an extra precaution, a radiation testing device approved by the LEA would be utilized for the proposed landfill.

Response to Comment No. 734

Please see response to Comment No. 53.

Response to Comment No. 735

Please see response to Comment No. 57.

Response to Comment No. 736

As discussed in response to Comment No. 136, the vadose materials underneath the proposed landfill footprint consist primarily of cemented conglomerate and bedrock. As a result, liquefaction in this type of medium would not occur.

Drainage control is discussed in response to Comment No. 53 and response to Comment No. 57. The separation between the ground water and the bottom of the landfill is discussed in response to Comment No. 731.

Response to Comment No. 737

Please see responses to Comment Nos. 164 and 181.

AIR EMISSIONS

738 The DEIR makes a case for the proposition that this landfill will actually produce no significant adverse impact on air quality, with the exception of cumulatively significant impacts of PM10 pollutants. Apparently this analysis relies heavily on the assumption made Table 4-16 and pp.4-85 ff. that methane gas and its associated pollutants in the LA basin will be greater than the hauling emissions of the project. Does this assumption use values after flaring and/or recovery of methane? Does this assumption take into account better improved technology and increased regulation of LFG? Does this assumption predict that methane generation from existing landfills will cease immediately when this, or another, regional landfill begins operations?

739 Additionally, this reviewer does not see an analysis of air quality or health impacts of the airstripping of LFG condensate and leachate proposed p. 2-71.

ODOR/NOISE

740 The DEIR analyzes odor and noise impacts on humans. What about sensitive, threatened and endangered species, such as the desert tortoise?

DESERT TORTOISE

741 The text alludes to the placement of a "tortoise-proof project fencing" at S-23. The implication is that failsafe fencing exists that can exclude tortoise without harming them. If failsafe fencing for desert tortoise exists, then the DEIR should document and describe it.

SOURCE OF COVER

742 The DEIR asserts that there is more than enough cover material for the landfill contained in the existing overburden and leached ore residue piles onsite. Given the huge volume of materials needed, the question of adequacy of cover is important.

What hazardous residues may be present in the leached-ore residue? What percentage of available cover does this represent? How did the DEIR reach the conclusion that there is adequate, non hazardous cover material available onsite? Why does the DEIR allude, p. 4-128 and elsewhere, to the use of alternative cover material? If alternative cover material is imported what are the hauling emissions predicted to be? Will the use of alternative cover be part of an effort to sidestep the recycling requirements of AB 939?

RECYCLABLES "STORAGE"

743 The DEIR allows for short term recyclables storage, 600,000 tons of them, onsite. If the recyclables were not removed within a certain time period then the proposal is to "allow the Applicant to

4

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER (CONTINUED)

Response to Comment No. 738

Please see response to Comment No. 21. Similar assumptions regarding LFG control efficiencies, LFG generation, and future technology were used for the analysis of the No Action Alternative and the Proposed Action.

Response to Comment No. 739

This comment correctly observes that explicit analysis of emissions from possible air stripping of LFG condensate and leachate, if any, was not presented in the Draft EIS/EIR. Standard air stripper operation for removing VOCs from LFG or leachate results in the release of dilute VOC concentrations into the atmosphere. The VOC concentrations are very low (only 1 to 2 ppb) and therefore do not require control technology. The atmospheric dispersion modeling and health risk analysis covered all generated LFG (including VOCs contained in these emissions) whether it be the 80 percent (at least) that would be collected and flared, or the maximum 20 percent that would be uncollected and emitted from the landfill surface. The small amount from both of these categories that would dissolve in LFG condensate and be potentially released in dilute concentrations from the air stripper would be covered by the health risk analysis. Similarly, this analysis would also address the very low VOC concentrations which could be derived from leachate.

Response to Comment No. 740

Draft EIS/EIR Section 4.1.3 contains a discussion of noise impacts to the desert tortoise. The discussion concludes that tortoises are not expected to be adversely effected by potential noise and noise impacts from the proposed landfill project, including increased rail traffic on the rail haul route and addition of the project rail spur. This conclusion was based on information from surveys (referenced in Section 4.1.3 of the Draft EIS/EIR) that were performed to investigate the relationship of the desert tortoise to potential habitat along active rail lines.

Response to Comment No. 741

Please see response to Comment No. 336.

RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER (CONTINUED)

Response to Comment No. 742

Please see response to Comment No. 2.

It is anticipated that approximately 225 million tons of cover material would be required for the proposed Mesquite Regional Landfill throughout its operating lifetime of 100 years. It is also estimated that by 1998 there will be over 230 million tons of cover material available from overburden piles at the Mesquite Mine. There would also, at that time, be more than 90 million tons of cover material available from the ore residue piles at the Mesquite Mine. This makes an approximate total of 320 million tons of available cover material in the year 1998. As a result, there would be adequate cover material available on site for the landfill.

Use of alternative cover is not proposed because adequate cover material can be obtained as described above. It is possible that some form of alternative cover may be used during the expected 100-year landfill life. This is identified in this EIS/EIR for purposes of public disclosure. Because it is not possible to determine if alternative cover would be used, how much should be used, when it would be used, where it would be used, or where it would come from, any attempt at analysis would be speculative and is therefore not required by NEPA or CEQA. Use of alternative cover on-site would require supplemental environmental review in the future.

Response to Comment No. 743

Recyclables would be hauled by MSW residue trains; therefore, the air quality impacts of hauling recyclables is addressed in the Draft EIS/EIR. Please see response to Comment No. 17.

landfill the materials," p.2-36. This raises some significant issues. What are the air quality and other impacts of transporting this additional volume of materials back and forth? Further, isn't this a potential way to sidestep AB 939 recycling laws without penalizing the non-recycling municipality?

TRAIN EMISSIONS

744 The DEIR at 4-69 asserts that "it is anticipated that train locomotive emissions will be reduced substantially during the operating life of the proposed regional landfill" and that "by Year 8...NOx emissions would be reduced 30 percent by improved technology" in order to comply with laws. The technology is there; why not required it be employed at startup as a condition of the project?

REQUIRE BACT

745 The DEIR requires the use of the Best Available Control Technology in the flaring of landfill gas. In general, if the DEIR is to assert that it truly intends to mitigate air quality and other impacts of the project over its 100 year lifespan, then BACT should be required for each area of impact. There will undoubtedly be major technological advances in pollution control, etc. The DEIR is grossly deficient if it does not require the use of the best technology when it becomes available throughout its mitigation and monitoring program.

FINANCIAL ASSURANCE

746 The discussion of financial assurance for landfill closure, post-closure and corrective action page 2-74 is nothing more than a statement that the proponent will comply with the law.

This is no ordinary landfill. Extraordinary financial assurance and funds available for immediate remediation of problems should be part of the required mitigation for this project if the intent is truly to protect the public and Imperial County.

Very truly yours,

Joan Taylor

Joan Taylor,
Conservation Chairman

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RESPONSE TO COMMENT LETTER RECEIVED FROM THE SIERRA CLUB, SAN GORGONIO CHAPTER (CONTINUED)

Response to Comment No. 744

Please see response to Comment No. 21.

Response to Comment No. 745

Throughout this EIS/EIR it is left open that new technological advances could be implemented in the future to improve the efficiency of landfill environmental controls. Implementation of BACT on a reasonable schedule would be a requirement of applicable permits.

Response to Comment No. 746

Comment noted. The extraordinary nature of this project is being considered by the BLM, County of Imperial, and the various permitting agencies.

B.L.M.

2000
Mesquite
Landfill

Regarding the Mesquite Mine Landfill!

PROGRESS IN IMPERIAL VALLEY

Our supervisors believe our desert is bare
And there's really nothing of value out there.
They want money, more money, their coffers to fill
So, they'll take in garbage from over the hill.

Industry, they tell us, will bring big bucks
As over the hill come the huge loaded trucks.
They want industry, more industry, we hear the call
As the valley changes, we go along with it all.

There's money in prisons, big money they say,
And "Two" prisons would mean just that much more pay!
But, did it even make it to the front page
That two escapees got as far as L.A?

New land-fills will be next __to gobble us up
As they reach out to fill up another big cup.
With time running out, I sit here like a lump
As our valley becomes just "a big garbage dump". 1994

c1992 Stacy Vellas 7/1/92

747 Submitted: June 2, 1994

I don't want to see our valley becoming a garbage dump for all of Southern California. It used to be a nice quiet farming community. Our supervisors make these choices; more industry, a garbage dump by Westmorland, prisons and now a landfill of Mesquite Mine and we just lie down and let it happen. We're constantly sacrificing old businesses to bring in new industry. Now, ---there's more people, ---more gangs, ---more drugs, --more killings.

This valley is no good anymore. Pollution, insecticides... look at the deaths by cancer in the obituaries. You can't **even die** peacefully anymore.

I'm going to leave. Maybe I'll find a place with good air where I can breath again!

Stacy Vellas

RESPONSE TO COMMENT LETTER RECEIVED FROM STACY VELLAS, DATED JUNE 2, 1994.

Response to Comment No. 747

Comment noted.

W A D E V E N T U R E S L T D

22807 . Chardonnay Drive . Suite 1 . Diamond Bar . CA . 91765

RECEIVED
EL CENTRO SUB-REGIONAL AREA
EL CENTRO, CA.

April 25, 1994

Dear Tom,

748 Thank you for the report. I have looked at it and it looks like a good idea to me.

I don't have any continued use for the report so I am returning it as you requested.

Sincerely,

Charles E. Wade
909-860-2432

RESPONSE TO COMMENT LETTER RECEIVED FROM WADE VENTURES LTD., SIGNED BY CHARLES E. WADE, DATED APRIL 25, 1994.

Response to Comment No. 748

Comment noted.

CERTIFIED COPY

MESQUITE REGIONAL LANDFILL
PUBLIC HEARING

RECEIVED
OCT 1 3 1994
RITTER/ZIMACK GROUP

MAY 25, 1994
7:00 O'CLOCK P.M.

EL CENTRO COMMUNITY CENTER
ROOM "A"
375 SOUTH FIRST STREET
EL CENTRO, CALIFORNIA

REPORTED BY: DIANA L. MURPHY
C.S.R. NUMBER 8805

ATWOOD, JENNINGS & ASSOCIATES
CERTIFIED SHORTHAND REPORTERS
POST OFFICE BOX 1849
EL CENTRO, CALIFORNIA 92244-1849
(619) 352-6488

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* * * * *

MESQUITE REGIONAL LANDFILL HEARING

TAKEN AT EL CENTRO COMMUNITY CENTER, ROOM A, 375 SOUTH FIRST STREET, EL CENTRO, CALIFORNIA 92243, COUNTY OF IMPERIAL, STATE OF CALIFORNIA, ON WEDNESDAY, MAY 25, 1994, COMMENCING AT 7:03 P.M., BEFORE DIANA L. MURPHY, A CERTIFIED SHORTHAND REPORTER WITHIN AND FOR THE STATE OF CALIFORNIA.

* * * * *

MR. HERVEY: LADIES AND GENTLEMAN, WOULD YOU PLEASE HAVE A SEAT. THE PUBLIC MEETING WILL NOW COME TO ORDER. MY NAME IS JOHN HERVEY, OUTDOOR RECREATION PLANNER, BAKERSFIELD DISTRICT OFFICE. I'VE BEEN ASKED TO SERVE AS THE HEARING OFFICER FOR THIS PUBLIC MEETING AS A MUTUAL PARTY.

THIS IS A PUBLIC HEARING FOR THE BUREAU OF LAND MANAGEMENT. I'D WOULD LIKE TO STRESS THAT THIS HEARING IS BEING HELD TO REVIEW INFORMATION, VIEWS, COMMENTS, AND SUGGESTIONS ON THE ADEQUACIES OF THE ENVIRONMENTAL IMPACT STATEMENTS AND ENVIRONMENTAL IMPACT REPORT PREPARED BY THE BUREAU OF LAND MANAGEMENT AND IMPERIAL COUNTY UNDER CONTRACT WITH THE GROUP ON THE PROPOSED MESQUITE REGIONAL LANDFILL, THIS LARGE YELLOW DOCUMENT.

THE DRAFT EIS/EIR WAS RELEASED FOR PUBLIC REVIEW ON APRIL THE 8TH. A 90-DAY COMMENT PERIOD IS NOW UNDER

WAY. OTHER THAN THE ORAL COMMENTS MADE HERE TONIGHT AND TOMORROW NIGHT AT THE PUBLIC HEARING IN INDIO, COMMENTS WILL BE ACCEPTED IN WRITING ONLY AND ACCEPTED JULY 6TH, 1994. THOSE COMMENTS SHOULD BE SUBMITTED TO THE BUREAU OF LAND MANAGEMENT OFFICE HERE IN EL CENTRO, 1661 SOUTH FOURTH STREET.

THE PURPOSE OF THESE HEARINGS IS TO ALLOW THE PUBLIC, YOU, THE OPPORTUNITY TO VERBALLY ADDRESS THE ADEQUACY OF OR CONCERNS NOT ADDRESSED IN THE DOCUMENT. WE WILL NOT BE ANSWERING ANY QUESTIONS AT THIS HEARING. IF YOU HAVE QUESTIONS REGARDING THE PROJECT, YOU MAY TALK TO THE APPROPRIATE PERSON AFTER THE PUBLIC HEARING OR VISIT THE BUREAU OF LAND MANAGEMENT OFFICE IN EL CENTRO.

WE DO HAVE SEVERAL PEOPLE FROM THE LOCAL AREA THAT HAVE BEEN INVOLVED IN THE PROJECT HERE:

BEN KOSKI, THE AREA MANAGER FROM THE BUREAU LAND MANAGEMENT, ON YOUR RIGHT.

JURG HEABERGER, FROM IMPERIAL COUNTY PLANNING, OVER ON THE LEFT.

AND BOB FILLER, WITH ARID OPERATIONS.

IF YOU PLAN TO MAKE AN ORAL STATEMENT THIS EVENING, YOU SHOULD HAVE ALREADY FILLED OUT ONE OF THESE SPEAKER SLIPS. THERE WILL BE AN OPPORTUNITY AFTER ALL THOSE THAT SIGNED UP TO SPEAK FOR PERSONS WHO DID NOT SIGN UP TO SPEAK THAT WANT TO MAKE A COMMENT.

THE OFFICIAL REPORTER IS DIANA MURPHY OF ATWOOD,

JENNINGS & ASSOCIATES OF EL CENTRO. SHE WILL PREPARE A VERBATIM TRANSCRIPT OF EVERYTHING THAT IS SAID IN THIS HEARING.

TO ENSURE A COMPLETE AND ACCURATE RECORD OF THE CORRECT HEARING, ONLY ONE PERSON SPEAK AT A TIME, EVERYONE ELSE REMAINS AS QUIET AS POSSIBLE WHILE THE HEARING IS IN PROGRESS. THE SPEAKERS WILL BE CALLED MORE OR LESS IN THE ORDER IN WHICH YOU SIGNED IN. SOME OF THE SLIPS MAY HAVE GOTTEN SHOVELED A LITTLE BIT. THE COURT REPORTER ASKS THAT YOU STATE YOUR NAME, ADDRESS, AND WHO YOU ARE REPRESENTING, WHETHER IT'S YOURSELF OR AN ORGANIZATION.

DUE TO THE NUMBER OF SPEAKERS WHO HAVE SIGNED UP, ALL COMMENTS WILL BE LIMITED TO FIVE MINUTES OR LESS. AS YOUR TIME STARTS TO EXPIRE, I'LL TRY TO GET YOUR ATTENTION THIS WAY (WAVING YELLOW PAPER) WITHOUT HAVING TO VERBALLY INTERRUPT YOU. IF TIME IS AVAILABLE AT THE END OF THE HEARING, I MAY CALL ON YOU AGAIN TO CONTINUE YOUR COMMENTS.

YOU MAY ALSO SUBMIT WRITTEN COMMENTS IN LIEU OF ORAL COMMENTS OR IN ADDITION TO ORAL COMMENTS. THEY MAY BE SYSTEMATICALLY TURNED IN AT THE END OF THE HEARING OR HAND DELIVERED TO THE BUREAU OF LAND MANAGEMENT OFFICE HERE IN EL CENTRO. THEY MUST BE RECEIVED OR POSTMARKED BY JULY 6TH IN ORDER TO BE CONSIDERED.

IN MAKING YOUR COMMENTS, WE ASK THAT YOU BE AS SPECIFIC AS POSSIBLE AND IDENTIFY THE SECTION OF THE

DOCUMENT THAT YOU ARE ADDRESSING. IF YOU CAN, GIVE YOUR REASONS, DATA, SUPPORTING DOCUMENTATION, ET CETERA.

YOU MIGHT BE ABLE TO SAY AN ALTERNATIVE PAGE 4 DASH 103 SECTION SO ON AND SO FORTH IS WRONG BECAUSE BLAH, BLAH, BLAH. BE AS SPECIFIC AS YOU CAN AND IDENTIFY THE SECTION IN THE DOCUMENT THAT YOU ARE ADDRESSING. THAT WOULD HELP THE PEOPLE IF YOU WERE TO BEGIN YOUR COMMENTS THAT WAY TO FULLY REVISING THE FINAL DOCUMENT.

THE WRITTEN COMMENTS WILL BE GIVEN THE SAME CONSIDERATION AS ORAL COMMENTS. WHICHEVER WAY YOU REFER TO OR PROVIDE THE COMMENTS IS FINE. IF YOU DO HAVE A COPY OF THE ORAL PRESENTATION, IT WOULD BE HELPFUL IF YOU COULD LEAVE A COPY OF THAT AT THIS MEETING. IF YOU HAVE ANY QUESTIONS ON THE PROCEEDINGS, I'LL ENTERTAIN THEM AT THIS TIME. IF NOT, I'LL CALL THE FIRST SPEAKER. WE ASK THAT YOU STAND AT THE PODIUM IN THE BACK -- I'M SORRY.

UNIDENTIFIED SPEAKER: I HAVE A QUESTION ABOUT THE PROCEDURES YOU LISTED REQUESTING PEOPLE IDENTIFY SPECIFIC SECTIONS OF THE DRAFT EIS/EIR. THAT WAS NOT INCLUDED IN THE INSTRUCTIONS. I DON'T THINK MOST PEOPLE KNEW THEY WERE GOING TO BE ASKED TO REFER TO SPECIFIC SECTIONS OR PAGES IN THE WRITTEN DOCUMENTS IN THEIR COMMENT.

MR. HERVEY: THAT'S FINE. MAKE YOUR ORAL PRESENTATION. IF YOU WISH TO FOLLOW UP WITH A WRITTEN ANALYSIS, BE MORE SPECIFIC. THAT'S PERFECTLY ACCEPTABLE.

ANY OTHER QUESTIONS ON PROCEDURES? I'LL PROCEED WITH THE FIRST SPEAKER, THEN.

I BELIEVE IT'S EUGENE KING.

MR. KING: I'M EUGENE KING. I LIVE AT 1811 'J' STREET. I HAVE A RANCH LOCATION OF 4205 DOGWOOD IN BRAWLEY. I AM HERE PERSONALLY AS AN INDIVIDUAL. I ALSO MAINTAIN KING'S WILDLIFE REHABILITATION AND EDUCATION CENTER DOING WILDLIFE EDUCATION TALKS. I HAVE BEEN ON THE JOB -- ON THE SITE WHERE IT'S TO BE. I DON'T SEE ANY MAJOR PROBLEM WITH IT AS FAR AS WILDLIFE ON MY SIDE. 749

AS I HAVE SEEN IT, IT LOOKS LIKE IT'S GOING TO BE UNDER GOOD CONTROL, GOOD -- I HAVE WORKED WITH THE GOLD MINE IN THE PAST, NOT AS AN EMPLOYEE, BUT AS A VOLUNTEER. AS FAR AS TAKING CARE OF ANY ANIMALS THAT THEY HAVE THAT MIGHT WANDER INTO THEIR AREA AND EVERYTHING, THEY HAVE BEEN VERY COOPERATIVE, WORKED WITH IT AS FAR AS TAKING CARE OF THE ANIMALS. I SEE NO PROBLEM IN THE FUTURE WITH THE DUMP SITE. I WANT TO SAY WHAT I HAVE SEEN OF IT, I SEE NO PROBLEM WITH IT IN OUR AREA. THANK YOU.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS HAROLD J. GASTON.

MR. GASTON: I'M HAROLD GASTON FROM NILAND, CALIFORNIA. MY WIFE AND I HAVE OPERATED THE RESTAURANT UP THERE FOR THE LAST 40 YEARS. THE PEOPLE IN NILAND THAT I HAVE TALKED TO WERE CONCERNED MOSTLY ABOUT TRASH POURING OVER FROM THE TRAIN GOING THROUGH. AFTER THEY FOUND OUT 750

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING, EL CENTRO, CALIFORNIA, DATED MAY 25, 1994.

Response to Comment No. 749

Comment noted.

Response to Comment No. 750

Comment noted.

THAT THE CARS WERE COVERED, THEY THOUGHT THAT WAS FINE.

751 ANOTHER CONCERN WAS IF THEY HAD A DERAILMENT, IF THERE WOULD BE TOXIC STUFF THAT WOULD BE TURNED LOOSE ON THE COUNTRY. EIR SAYS THERE IS NOTHING TOXIC ON THE TRAIN. MOST OF THEIR CONCERN SEEMS TO HAVE BEEN IN THE ACTIVE EIR PERSONALLY, I'D LIKE TO SEE IT GO. IMPERIAL COUNTY NEEDS IT.

MR. HERVEY: MR. GASTON, ARE YOU REPRESENTING YOURSELF, SIR?

MR. GASTON: I DIDN'T UNDERSTAND YOU.

MR. HERVEY: ARE YOU REPRESENTING YOURSELF OR A GROUP OF INDIVIDUALS?

MR. GASTON: I REPRESENT MYSELF.

MR. HERVEY: THANK YOU, SIR.

IF YOU CAN, IT WOULD HELP TO SPEED UP THE PROCEEDING IF YOU WILL SAY WHO YOU ARE REPRESENTING, YOURSELF OR A GROUP OR AN ORGANIZATION.

NEXT SPEAKER IS JACK OWEN OF EMPIRE MACHINERY.

MR. OWEN: MR. JOHN HERVEY, LADIES AND GENTLEMEN, I AM JACK OWEN. I REPRESENT EMPIRE MACHINERY. OUR ADDRESS IS P.O. BOX 936, IMPERIAL, CALIFORNIA 92251.

I'D SPECIFICALLY LIKE TO MAKE COMMENTS TODAY ABOUT THE SOCIOECONOMIC IMPACT OF THE PROJECT. I'D LIKE TO COMMENT ON THE ENVIRONMENTAL DOCUMENTS, PAGE 4-152 AND 153. AS A LOCAL BUSINESS, WE'RE CERTAINLY AWARE THAT THERE IS A GREAT ECONOMIC IMPACT THAT COULD BE GAINED FROM

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 751

The EIR does not say that "there is nothing toxic on the train." Small quantities of hazardous materials likely would escape detection at the MRF/transfer stations and would be included in the containers that would be shipped to the site by rail. Such small quantities of hazardous materials could be readily cleaned up in the event of a spill, with no danger to local residents.

THIS PROJECT.

IN THE INITIAL STAGES THERE WOULD BE ABOUT 150 CONSTRUCTION WORKERS AT THE SITE. WE FEEL LIKE THAT WOULD BE AN ACCURATE ESTIMATE. PAYROLL WOULD RANGE ABOUT FIVE MILLION DOLLARS ANNUALLY FOR THAT FIRST YEAR OF CONSTRUCTION. FULL-TIME EMPLOYMENT WOULD MEAN ABOUT 250 JOBS LOCALLY WITH A POTENTIAL LANDFILL LIFE ABOUT UP TO A HUNDRED YEARS. THE INITIAL PURCHASES FOR THE COMMUNITY AND FOR THIS PROJECT WOULD TOTAL ABOUT 70 MILLION DOLLARS. OBVIOUSLY THERE WOULD BE A LOT OF PEOPLE HIRED LOCALLY AND IT'S ESTIMATED IN THE DOCUMENTS THAT THE UNEMPLOYMENT RATE WOULD TEMPORARILY DECREASE, ABOUT 1.3 PERCENT IN A DOWNWARD FASHION.

THE PROJECT HAS ALMOST AN AMAZING POTENTIAL ASPECT ON THE ECONOMIC SIDE OVER A 20-YEAR PERIOD. THERE WOULD BE A QUARTER OF A MILLION DOLLARS THAT WOULD FLOW DOWN THROUGH PAYROLL AND EMPLOYMENT BENEFITS, AND OVER, AGAIN, THE 20-YEAR PERIOD. THERE IS ABOUT A HALF BILLION DOLLARS THAT WOULD BE EXPENDED ON LANDFILL EXPENDITURES FOR GOODS AND SERVICES LOCALLY.

AS A COMPANY, WE'RE VERY FAMILIAR WITH THE MESQUITE MINE OF THE GOLD FIELD MESQUITE PROJECT IN BRAWLEY. AND TYPICALLY THE ANNUAL SALARY FOR THE WORKERS IS $30,000. WORKERS AT THE LANDFILL SITE WOULD RECEIVE ABOUT THE SAME WAGE, WHICH WOULD BE IN A PAYROLL OF ABOUT EIGHT MILLION DOLLARS ANNUALLY.

I'M PERSONALLY FAMILIAR WITH THE GOLD FIELD MESQUITE SITE. THEY HAVE BEEN VERY RESPONSIBLE FROM A ENVIRONMENTAL STANDPOINT I THINK TO THE POINT WHERE THEY
752 HAVE BEEN INNOVATIVE IN SOME RESPECTS. AS AN EMPLOYER IN THIS COMMUNITY, WE WOULD REALLY SUPPORT THE ADDITION OF THIS PROPOSED MESQUITE REGIONAL LANDFILL.

THANK YOU. VERY KINDLY.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS KEVIN CHAUVIN.

MR. CHAUVIN: MY NAME IS KEVIN CHAUVIN. I ALSO REPRESENT EMPIRE MACHINERY. AND I RESIDE AT 1725 OLIVE AVENUE, EL CENTRO. I'D LIKE TO ADDRESS ALSO THE SOCIOECONOMIC PORTION OF THE STUDY.

I'D LIKE TO CALL YOUR ATTENTION TO CHAPTER 4, PAGE 4-152. ON THIS PAGE IT STATES THAT A NUMBER OF SECONDARY JOBS WOULD BE CREATED AS A RESULT OF THIS PROJECT. OF THESE JOBS, 91.5 PERCENT WOULD BE ENLISTING IMPERIAL COUNTY RESIDENTS. ACCORDING TO THE STUDY, I FEEL THAT'S A PRETTY ACCURATE ESTIMATE. IT ALSO STATES THAT THIS NUMBER MAY BE UNDERSTATED.

IN THE SAME SECTION IT REFERS TO THE WORK FORCE OF MESQUITE GOLD MINE AND THE FACT THAT THE MESQUITE GOLD MINE HAS BEEN SUCCESSFUL IN RECRUITING LOCAL EMPLOYEES TO PROVIDE A RELIABLE WORK SOURCE -- WORK FORCE.

IN MY EXPERIENCE AT EMPIRE MACHINERY, I HAVE TO AGREE WITH THE ASSUMPTIONS. EMPIRE IS AN EXAMPLE OF A

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 752

Comment noted.

BUSINESS IN IMPERIAL COUNTY WHERE SECONDARY JOBS WOULD BE CREATED AS A RESULT OF CONSTRUCTION AND THE OPERATION OF THE LANDFILL. ALTHOUGH THERE IS NO WAY TO ACCURATELY PREDICT THE NUMBER OF JOBS THAT WOULD BE CREATED FROM THAT LANDFILL, THESE POSITIONS AT EMPIRE, SHOULD THIS PROJECT COME, WILL BE RECRUITED FROM THE LOCAL WORK FORCE. THESE WORKERS WILL OBVIOUSLY CONTRIBUTE TO THE LOCAL ECONOMY AND PAY THEIR FAIR SHARE OF TAXES.

ON PAGE 4-156 IN THE ENVIRONMENTAL STUDY IT STATES THAT IMPERIAL COUNTY WOULD RECEIVE REVENUES FROM FOUR SOURCES, THE FOUR SOURCES BEING TOTAL TAXES, CHARGES FOR CURRENT SERVICE, LICENSES, AND PERMITS. AND I ALSO FEEL THAT THESE INCREASED REVENUES ARE BENEFICIAL TO THE 753 AREA OF IMPERIAL VALLEY IN GENERAL. BECAUSE OF THE SECONDARY JOBS THAT WOULD BE INCREASED FROM THE REVENUES, I FEEL THAT THE MESQUITE REGIONAL LANDFILL WOULD GET BENEFICIAL BENEFIT FROM IMPERIAL COUNTY.

MR. HERVEY: NEXT SPEAKER IS EDIE HARMON.

MS. HARMON: MY NAME IS EDIE HARMON. I REPRESENT THE SAN DIEGO CHAPTER OF THE SIERRA CLUB, 17-YEAR RESIDENT OF IMPERIAL COUNTY.

I WOULD LIKE TO MAKE THAT COMMENT THAT ANY COMMENTS THAT I MAKE TONIGHT ARE STRICTLY PRELIMINARY. WE HAVE NOT HAD THE OPPORTUNITY TO COMPLETE OUR REVIEW OF THE DRAFT EIS AND ALL OF THE APPENDICES.

I WOULD SAY FROM OUR REVIEW TO DATE THAT IT

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 753

Comment noted.

APPEARS THAT EIS IS PROBABLY THE MOST INADEQUATE DOCUMENT WE EVER REVIEWED. THE INFORMATION IN THE EXECUTIVE
754 SUMMARY IS OFTEN INCONSISTENT WITH THE TEXT OF THE FOLLOWING SECTIONS OF THE EIS AND TAX INDEMNITY IN THE APPENDICES.

755 THE ASSERTIONS THERE IS NO HAZARDOUS WASTE IN MUNICIPAL SOLID WASTE OR LANDFILLS THAT ACCEPT LANDFILL WASTE IS ERRONEOUS, EVEN ACCORDING TO THE TEXT OF DRAFT EIS. IT'S STUDY CONCLUDED THAT HOUSEHOLD HAZARDOUS WASTES COMPRISE BETWEEN 0.31 AND 0.52 OF THE MUNICIPAL SOLID WASTE STREAM IN CALIFORNIA. WHEN YOU LOOK AT THE TOTAL WASTE ACCEPTED IN THE PROPOSED LANDFILL DURING THE LANDFILL LIFE, THAT AMOUNTS TO 1.86 MILLION TO 3.12 MILLION TONS OF HAZARDOUS WASTE IN THE LANDFILL.

756 BASED ON THE WATER CRITERIA AND THE APPENDIX, I THINK IT WAS APPENDIX B, HYDROLOGY, THE INFORMATION IN TABLE 3.5, TABLE 3.6 INDICATES THAT THE GROUNDWATER UNDERLYING THE PROPOSED LANDFILL WOULD BE A CLASS 2 GROUNDWATER ACCORDING TO U.S.E.P.A. STANDARDS IN THE OCTOBER 1991 FINAL PROPOSED MUNICIPAL SOLID WASTE LANDFILL. GROUNDWATER OF THAT QUALITY REQUIRES SUBSTANTIAL PROTECTION.

AN INDICATION THAT THE QUALITY OF GROUNDWATER SUGGESTS THAT THE T.D.S. LEVEL OF 500 WAS THE CUTOFF POINT FOR TOTAL WATER SUPPLIES WHERE IN FACT THE T.D.S. LOCAL WATER IN MOST PORTIONS OF SOUTHERN CALIFORNIA WITH THE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 754

The Sierra Club San Diego Chapter Comment Letter provides specific examples of purported inconsistencies in the Draft EIS/EIR. Please see responses to Comment Nos. 301 to 727.

Response to Comment No. 755

Please see responses to Comment Nos. 319 and 320.

Response to Comment No. 756

As discussed in response to Comment No. 710, the proposed landfill protection systems are based on ground water being potentially suitable for domestic purposes. A review of water quality data extrapolated from the Mesquite Mine indicates that the SC and TDS values for Well GF-3A were transposed in Table 3-7 of the Draft EIS/EIR and Table 3.5 of Appendix B to the Draft EIS/EIR. This has been corrected in the Final EIS/EIR. Finally, the Subbasin Water Quality section of Response to Comment No. 136 provides and discusses Mesquite Mine monitoring well water chemistry data through 1993, which was not available when the Draft EIS/EIR was first drafted. This additional data has been added to Table 3-6 of the Final EIS/EIR.

EXCEPTION OF SOME AREAS THAT ARE DEPENDENT ON GROUNDWATER IS CLOSER TO 700 OR 800 PARTS E.D.S. THE TEXT OF THE DRAFT EIS DOCUMENTED THAT THE WATER FROM THE GOLD FIELD MINE/WELL FIELD WAS BEING TREATED TO PROTOCOL STANDARDS AND USED ON SITE.

757 I WOULD FURTHER NOTE THAT THE INFORMATION IN TABLE 3.5, APPENDIX B, SHOWS VERY STARTLING DETERIORATION IN GROUNDWATER QUALITY AT GOLD FIELD WELL 3-A. T.D.S. JUMPED 1,069 TO 2,100 FOR A PERIOD -- I THINK IT WAS UP TO 1992. I THINK IT WAS '85 TO '86 TO 1992 WHEN IT DEEPLY CONCERNED THE INFORMATION ON WATER QUALITY TABLE 3.5.

758 TABLE 3.6 DOES NOT INDICATE THAT MONITORING HAS BEEN CONTINUED TO THE PRESENT TIME. APPARENTLY GROUNDWATER EITHER CEASED OR THE DATA WAS WITHHELD FROM THE EIS. IF WELLS WERE MONITORED PRIOR TO THE PREPARATION OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, MONITORING SHOULD HAVE BEEN CONTINUED ON THE TABLE FOR RAINFALL, APPENDIX B NOTES RAINFALL MONITORING AT THE MESQUITE LANDFILL SITE CEASED OR WAS NOT RECORDED AFTER 1988.

QUESTIONS ARE, WHERE IS THE DATA?

WHY WASN'T IT INCLUDED?

759 STUDIES ON LANDFILLS THAT HAVE BEEN DONE IN OTHER PARTS OF THE COUNTRY, A STUDY THAT WAS DONE BY PHILLIPS PETROLEUM ON THE HIGH DENSITY POLYEURETHANE LINER THAT IS THE LINER OF THE LANDFILLS AND THE STUDIES

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 757

Please see responses to Comment Nos. 136 and 480.

Response to Comment No. 758

The information provided was up to date at the time the ground water analyses for the proposed Mesquite Regional Landfill Draft EIS/EIR were performed. Subsequent data has been collected by the Mesquite Mine and has been provided for the Final EIS/EIR. Note that the conclusions of the analysis remain unchanged after including this additional data. The Mesquite Mine is not required by state or federal permitting agencies to monitor for most of the parameters shown in Table 3-6 of the Draft EIS/EIR. The information provided is from the Mesquite Mine's own background data. Please see response to Comment No. 138.

Response to Comment No. 759

Please see response to Comment No. 110.

CONDUCTED FOR THE U.S.E.P.A., INDICATE THAT THE H.E.P. LINER LEAKS.

IN SOME CASES THE INTERACTIONS OF CHEMICALS OR SUBSTANCES AND HOUSEHOLD WASTE SUCH AS OIL, VINEGAR, SHOE POLISH CAUSE DRILL CRACKING OR PERMEATE THROUGH THE LINER SOMETIMES AS LITTLE AS WITHIN TWO DAYS OF INSTALLATION OF THE LINER. SOME OF THE LINERS, DEPENDING ON THE -- UP TO 2.54 INCHES, MIGHT MAKE IT AS LONG AS 13 DAYS TO LEACH THROUGH THE LINER SYSTEM BECAUSE OF THE INTERACTION OF THE PLASTIC MATERIALS THAT ARE IN THE LEACH.

THERE IS NO INDICATION IN THE TEXT THAT WE REVIEWED SO FAR TO EXPLAIN --

(MR. HERVEY IS HOLDING UP YELLOW PAPER.)

MS. HARMON: OKAY.

760 -- THE DETAILS OF THE LINER SYSTEM, THE MONITORING, HOW IT WOULD BE DONE, WARRANTIES FROM THE MANUFACTURER. MY INFORMATION IN THE CASE IS THAT MOST MANUFACTURERS OF WARRANTIES --

(MR. HERVEY IS HOLDING UP YELLOW PAPER AGAIN.)

MS. HARMON: I GIVE UP. WE WILL SUBMIT A DETAILED WRITTEN COMMENTS, PAGE BY SECTION.

MR. HERVEY: I'LL CALL ON YOU IN A LITTLE BIT.

MS. HARMON: PARDON ME?

MR. HERVEY: I'LL CALL ON YOU IN A LITTLE BIT. NEXT SPEAKER IS JOHN BRIDGES.

MR. BRIDGES: GOOD EVENING. I'M JOHN BRIDGES

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 760

Please see response to Comment No. 110.

WITH C.B.A. ENVIRONMENTS, 6310 GREENWICH DRIVE, SUITE 220, SAN DIEGO, 92131.

I'M HERE TONIGHT REPRESENTING THE CITIES OF HOLTVILLE, CALEXICO, BRAWLEY, AND EL CENTRO. OUR FIRM IS VIEWING THE DRAFT EIS/EIR AND WE'LL PREPARE A LETTER THAT WILL FOLLOW IN A FEW DAYS THAT IDENTIFIES OR INCLUDES THE COMMENTS THAT I WILL BE SUMMARIZING THIS EVENING.

I WANT TO POINT OUT THAT ALTHOUGH THE PROJECT ITSELF HAS MANY BENEFICIAL EFFECTS, THERE ARE VERY SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT NEED TO BE REVIEWED. SPECIFICALLY, THERE ARE THREE AREAS THAT ARE IDENTIFIED AS SIGNIFICANT. THESE ARE VISUAL IMPACT, CUMULATIVE AIR IMPACT, TRAFFIC IMPACTS.

761 WHILE MITIGATION IS INCLUDED IN THE DRAFT DOCUMENT THAT TRIES TO DEAL WITH EACH OF THOSE IMPACTS, TRIES TO REDUCE THOSE IMPACTS, WE FEEL THE DOCUMENT HAS OVERLOOKED A VERY IMPORTANT SOURCE OF MITIGATION. THAT SOURCE IS THE HOST FEES OR IMPORT FEES THAT WILL BE PAID BY THE LANDFILL OWNER AND OPERATOR TO THE COUNTY. THOSE FEES ARE AN IMPORTANT SOURCE OF MITIGATION THAT SHOULD BE USED BY NOT ONLY THE COUNTY OF IMPERIAL, BUT BY THE CITIES OF IMPERIAL COUNTY TO ADDRESS BROAD-BASED IMPACTS THAT ARE ASSOCIATED WITH THE PROJECT.

NOW, LET ME GIVE YOU AN EXAMPLE OF ONE WAY THIS CAN BE DONE. SIGNIFICANT CUMULATIVE CARE QUALITY IMPACTS ARE IDENTIFIED FOR THE PROJECT AND THOSE MITIGATIONS ARE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 761

Please see response to Comment No. 18.

HOST FEES. IF THEY ARE SHARED BY THE CITIES AND THE COUNTY, THEY CAN BE USED FOR ROAD PAVING, STREET CLEANING AND FOR OTHER TYPES OF MITIGATION THAT CAN IMPROVE AIR QUALITY. THAT'S ONE EXAMPLE. OUR LETTER WILL CITE A NUMBER OF EXAMPLES WHERE THESE FEES CAN BE USED.

IN SUMMARY, HOST FEES REPRESENT AN IMPORTANT SOURCE OF MITIGATION FOR ENVIRONMENTAL IMPACT SOILS CREATED WITH THE LANDFILL PROJECT. FINAL EIS/EIR NEEDS TO INCLUDE AS A MITIGATION MEASURE AN EQUITABLE DISTRIBUTION OF THE HOST FEES BETWEEN THE CITIES AND COUNTY, AND THE USE OF THOSE HOST FEES BROUGHT BY WAY OF MITIGATION.

NOW, WE WILL BE SUBMITTING A SECOND LETTER LATER DURING THE PUBLIC REVIEW PROCESS. WE'RE IN THE PROCESS RIGHT NOW OF DOING A THOROUGH REVIEW OF THE DRAFT EIS/EIR. THAT SECOND LETTER WILL BE SUBMITTED LATER BEFORE THE PUBLIC REVIEW PERIOD ENDS.

WITH THAT, I'D LIKE TO THANK YOU FOR THE OPPORTUNITY TO PRESENT OUR POSITION TONIGHT. WE'LL BE SUBMITTING A LETTER LATER. THANK YOU.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS GERRY EMERSON.

MR. EMERSON: MY NAME IS GERRY EMERSON. I'M WITH SERROT CORPORATION, 5401 ARGOCY DRIVE, HUNTINGTON BEACH, CALIFORNIA. SERROT CORPORATION IS A SPECIAL CONSTRUCTION COMPANY THAT MANUFACTURES AND INSTALLS GEOMEMBRANE LINING SYSTEMS FOR MUNICIPAL LANDFILLS,

HAZARDOUS WASTE LANDFILLS. MAJOR APPLICATIONS FOR USE OF SYNTHETICS ARE REQUIRED IN THE ENVIRONMENTAL CONTEXT.

I HAVE HAD A CHANCE TO LOOK AT SECTION 2.1.5 -- WHICH IS ON PAGE 2-37 -- WHICH ADDRESSES THE LINER LEACHATE MANAGEMENT SYSTEM FOR THE LAND FILLINGS. BY THE WAY, SERROT HAS -- IS AN INSTALLER OF MEMBRANES, MANUFACTURER OF MEMBRANES. WE WORK ALL OVER THE UNITED STATES. WE'VE INSTALLED LINER SYSTEMS IN MUNICIPAL SOLID WASTE LANDFILLS THROUGHOUT THE UNITED STATES IN ALMOST EVERY STATE IN THE UNION.

IN ADDRESSING THIS SECTION, IT APPEARS TO US THAT THERE IS THREE AREAS THAT ARE IMPORTANT IN THIS SECTION 2.1.5 WHICH ARE ADDRESSED IN THIS DESIGN, THE MATERIALS, AND THE INSTALLATION ASPECT WHICH ADDRESSES THE FINAL QUALITY OF ANY LANDFILL CONTAINMENT SYSTEM.

762 THE DESIGN, OF COURSE, IS A VERY CONSERVATIVE DESIGN. IT IS A TRIPLE COMPOSITE SYSTEM WHICH IS PROMULGATED BY E.P.A. THE MATERIAL SELECTED FOR THE LINER SYSTEM, THE HIGH DENSITY POLYETHYLENE ABOVE THE CLAY AND LOW DENSITY POLYETHYLENE LINER ARE THE CHOICE OF ALL OF THE MAJOR ENGINEERING FIRMS THROUGHOUT THE UNITED STATES FOR SUCH CONTAINMENT SYSTEMS. THEY ARE PROBABLY THE MOST CHEMICALLY RESISTANT MATERIAL FOR LANDFILL LEACHATES THAT IS CURRENTLY KNOWN IN THE INDUSTRY.

THEY -- FINALLY, THE INSTALLATION ASPECT OF IT WHICH IS A CRITICAL ELEMENT TO THE FINAL SUCCESS OF ANY

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 762

Comment noted.

LANDFILL SYSTEM, NOT ONLY DO YOU HAVE TO HAVE GOOD MATERIALS GO INTO THE SYSTEM, YOU HAVE YOU TO HAVE PROPER INSTALLATION, PROPER INSPECTION OF THAT INSTALLATION SO THAT THE INTENDED DESIGN IS FULFILLED, YOU WILL NOT HAVE ANY POTENTIAL PROBLEMS FURTHER DOWN THE ROAD.

763 TO THAT LAST ISSUE, THERE PROBABLY SHOULD BE CONSIDERED -- MAYBE IT'S ADDRESSED SOMEWHERE ELSE -- I HAVEN'T HAD A CHANCE TO LOOK TOTALLY THROUGH IT -- AN ITEM THAT WOULD COVER THIRD PARTY INSPECTION, WHICH IS AN INDEPENDENT THIRD PARTY CONTRACTOR HIRED BY THE OWNER THAT IS INDEPENDENT FROM THE ENGINEER AND THE CONTRACTOR TO MONITOR THE QUALITY CONTROL OPERATION, FINAL SPECIFICATIONS AND QUALITY CONTROL MANUAL, WHICH DESIGNATES ALL OF THE TRACEABILITY OF THE MATERIALS, RESINS, WELDING, AND THE TESTING DONE IN NONDESTRUCTIVE TESTING, ALL THE CERTIFICATIONS THAT ARE TRUE TO A COMPLETED PROJECT.

THANK YOU VERY MUCH.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS JAY VON WERLHOF.

MR. VON WERLHOF: JAY VON WERLOF, ARCHEOLOGIST, IMPERIAL COUNTY MUSEUM. OVER THE LAST 20 YEARS I HAVE BEEN ENGAGED IN ARCHEOLOGICAL SURVEYS AND EXCAVATIONS HERE IN THE IMPERIAL COUNTY. MY PARTICULAR ADDRESS IS MORE -- SEVERAL PEOPLE WHO HAVE EXPRESSED SOME CONCERNS ABOUT THE DISPOSITION AND MITIGATION OF CULTURAL COURSES AT THE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 763

If the project is approved, inspection by an independent third party will occur as required by permitting agencies. In addition, the RWQCB has indicated that they will have a RWQCB staff person on-site to oversee this inspection.

ACCEPTED SITE.

IN 1983, '84, WE UNDERTOOK THE PIONEERING TASK OF THE LARGEST ARCHEOLOGICAL SURVEY EVER DONE IN IMPERIAL COUNTY WITH EIGHT SECTIONS OF DETAILED WORK TO PERFORM. WE FOUND OVER A THOUSAND PREHISTORIC AND HISTORIC MATERIALS WITHIN THAT SITE AREA.

SINCE THEN, MOONEY ASSOCIATES, SAN DIEGO, ESPECIALLY UNDER THE PRINCIPAL INVESTIGATIVESHIP OF DR. SHERRY SHAFFER AND DR. STEVEN SHACKLEY, CURRENTLY AT THE UNIVERSITY OF CALIFORNIA, BERKELEY, HAVE DISCOVERED SEVERAL ADDITIONAL SITES THAT WE HAD OVERLOOKED IN OUR SURVEY.

THE SUBSEQUENT MITIGATION EFFORTS AND THE COLLECTING AND EXCAVATION HAVE BEEN SATISFIED TO PROCEED IN THE SUBJECT AREA. I TALKED DR. SHAFFER THIS MORNING ABOUT THE FINAL DISPOSITION AND THE COLLECTED MATERIAL. THESE ARE GOING TO BE DEPOSITED AT IMPERIAL VALLEY DESERT MUSEUM SOMETIME THIS YEAR WHEN THE WHOLE COLLECTION IS COMPLETED.

764 FROM A CULTURAL RESOURCE STANDPOINT, FOLKS THAT EXPRESSED CONCERN MAY VERY WELL REST THAT THE MATERIALS HAVE BEEN PROPERLY CATALOGED, ANALYZED, AND MITIGATED.

THANK YOU.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS NORMAN SELF.

MR. SELF: MY NAME IS NORMAN SELF. I'M

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 764

Comment noted.

REPRESENTING MYSELF. AND I CAN'T BELIEVE I SAID THAT. SPECIFICALLY AS A PERSON INTERESTED IN DESERT RECREATION, ALSO AS A CONCERNED CITIZEN OF IMPERIAL COUNTY, ALMOST ALL OF MY LIFE I'VE BEEN INTERESTED IN THE DESERT. I LOVE THE DESERT'S BEAUTY. I LOVE THE FREEDOM OF BEING IN THE DESERT, ALL OF THOSE THINGS THAT ACCRUE TO SOMEONE WHO LIKES TO GO FOUR-WHEELING AND HIKING IN THE DESERT.

AND, ON THE OTHER HAND, THOUGH, AS A CITIZEN, I FEEL THAT THERE IS A NEED FOR A PROJECT LIKE THIS. I FELT THAT FOR A LONG TIME BEFORE I EVER HEARD OF ANYBODY ACTUALLY DOING IT. WE HAVE OTHER PROBLEMS IN THE COUNTY ON SOME OF THE LOCAL CITY'S LANDFILLS, AND ALSO THE STATE HAS PROBLEMS. THIS ANSWERS MANY OF THOSE QUESTIONS. ANYWAY, THAT'S WHERE I'M COMING FROM.

AS FAR AS THE RECREATION ASPECT OF THIS, I PERSONALLY DON'T FEEL A LOSS FOR THE EXACT SITE THAT THEY ARE TALKING ABOUT, FOOTING THIS PROJECT. I HAVE CLIMBED THE HILL THAT HAS -- YOU CAN SEE THE ROADS FROM HIGHWAY 78 -- IN MY FOUR-WHEEL-DRIVE VEHICLE, HAD TO WAIT FOR A TORTOISE TO GET OUT OF THE WAY. IT IS TRUE, THAT IS TORTOISE COUNTRY.

BUT THAT HILL HAS ALREADY BEEN BURIED UNDER OVERBRUSH, MOSTLY OR PARTLY BURIED UNDER OVERBRUSH. THIS PROJECT, I DON'T SEE A LOSS THERE. I HAVE A PHOTOGRAPH IN MY OFFICE -- AERIAL PHOTOGRAPH -- OF THE WHOLE AREA FROM THE WELL APPROXIMATELY FOUR OR FIVE MILES SOUTH OF THE

MINE UP TO THE MINE BEFORE THE MINE EXISTED. AND IT SHOWS, IN FACT, ALL ALONG THE THEN-EXISTING HIGHWAY 78 WHICH IS RIGHT WHERE THIS IS GOING TO BE.

I CAN REMEMBER DRIVING ALONG THAT HIGHWAY AND SEEING THE JUNK THAT MINERS HAD LEFT THERE AND ALSO THE WAY IT LOOKED FROM SOME OF THE SAND AND GRAVEL OPERATIONS THAT WERE DONE ALONG THERE. IT WAS NOT A PRETTY SITE. I'M NOT SAYING THAT GOLD FIELDS IS ANY PRETTIER. IT'S AT LEAST NEATER THAN IT USED TO BE.

AS FAR AS THE VISUAL IMPACT OF THAT PROJECT, I FEEL IT'S NECESSARY ENOUGH. PERSONALLY, I'M WILLING TO
765 SACRIFICE THAT LITTLE SPOT OF VISUAL IMPACT. AND I THINK THAT'S ABOUT ALL I HAVE TO SAY.

THANK YOU.

MR. HERVEY: THANK YOU.

NEXT IS SPEAKER IS RANDY RISTER.

MR. RISTER: MY NAME IS RANDY RISTER. REPRESENT IMPERIAL FISH AND GAME, IMPERIAL PARKS AND RECREATION TONIGHT. WE REVIEWED THE EIR AND FROM A FISH AND GAME STANDPOINT, WE WERE CONCERNED ABOUT THE ATMOSPHERE. WE CURRENTLY OPERATE BETWEEN 15 AND 18 EXTRACTION DEVICES IN THIS GENERAL AREA OF THE AQUIFFER. WE'RE NOT SURE HOW FAR THAT AQUIFFER EXPANDS.

EXTRACTION DEVICES, THEY CAN MAKE UP OR COMPRISE SOLAR-OPERATED SUBMERSIBLE PUMPS FOR WINDMILLS, COMMERCIAL PUMPS AT VARIOUS ELEVATIONS PUMPING GROUNDWATER FOR

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 765

Comment noted. Visual impacts would be significant and unmitigable.

VARIOUS SPECIES OF WILDLIFE IN THE PARTICULAR AREA,
766 INCLUDING BIG HORN SHEEP. IN REVIEWING THE TRIPLE
COMPOSITE LINER WITH THE LEACHATE COLLECTION AND GAS
COLLECTION SYSTEM, LOOKING AT THE VARIOUS ENGINEERING
CRITERIA, WE FEEL THAT THAT IS AN ADEQUATE COMPONENT IN
ITS ENTIRETY TO PROTECT THAT AQUIFFER, COLLECT THE
LEACHANTS FROM THE WASTE STREAM, TREAT THAT ON SITE,
RECYCLE THAT WATER TO THE LEACHATE AND POSSIBLY GAS
COLLECTION SYSTEM.

767 ONE THING WE WOULD LIKE TO ADD, THOUGH, IS THAT
IN FIGURE 3-12, UNDER THE MONITORING WELL CONFIGURATION,
WE WOULD RECOMMEND THAT AN ADDITIONAL MONITORING WELL BE
CONSIDERED DOWNSTREAM FROM THAT AQUIFFER WHICH WOULD BE IN
A DIRECTION NORTHWEST TO THE SALTON SEA DRAINAGE WHICH IS
THE PARENT MIGRATION OF THAT AQUIFFER FROM THE KNOWN
ELEVATION TO BELOW SEA LEVEL.

768 ADDITIONALLY, WE ARE CONCERNED ABOUT THE
CONTINUANCE OF THE WASHES IN THE AREA. WE UNDERSTAND THAT
THERE IS A DIVERSION THAT WILL BE NECESSARY DURING CERTAIN
PHASES OF THE PROJECT. WE'RE CONCERNED ABOUT THE DESERT
MICROFIL WOODLANDS THAT PROVIDES HABITAT FOR WILDLIFE
SPECIES. WE WOULD LIKE TO SEE THOSE WASH FLOWS CONTINUED
SO THAT THE WATER FLOW FROM THE STORM RUNOFF WILL CONTINUE
TO PROVIDE FOR THAT NECESSARY PLANT GROWTH AND VEGETATION.

THE OTHER CONCERN THAT WE HAD WHICH APPEARS TO
BE ADDRESSED, WE'D LIKE TO REITERATE THAT IN THE 1989

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 766

Comment noted.

Response to Comment No. 767

Please see response to Comment No. 110 for a discussion of ground water monitoring wells and planned additional wells that would be added to comply with state monitoring requirements.

Response to Comment No. 768

The last bullet in the left-hand column on page 4-15 of the Draft EIS/EIR (which is also included in this Final EIS/EIR) requires the following: "Design and construct diversion channels to discharge flows at approximately the same locations and flow rates that occur presently or which historically occurred prior to development of the mine diversion system." This mitigation measure addressed the concern raised in this comment.

ANNUAL BACKFILL OF THE OVERBURDENED MATERIAL ONTO THE WASTE SITE, WE CONCUR WITH THE FINDINGS OF THE UNIVERSITY OF ARIZONA, TUCSON, ON THE CURRENT SITE OPERATIONS WHERE THEY ARE USING THE ARID LANDS REVEGETATION PROGRAM.

769 WE WOULD LIKE TO SEE THE LESSONS LEARNED FROM THAT PROGRAM AT THE MINE SITE EXPANDED TO MATERIAL COVER THAT RESOURCE CONTOUR AND THE CATCHMENT OF THE STORM RUNOFF, RATHER THAN CREATING GULLIES OR WASHES DOWN THE SIDE OF THIS OVERBURDENED MOUNTAIN.

IF THOSE WERE REVERSED, CONTOURED TO COLLECT THE WATER TO NATIVE VEGETATION THAT IS REPLANTED, WE CONCEDE THIS AS AN ENHANCEMENT TO THE WILDLIFE AND SPECIES IN THE AREA. THE PRIMARY CONCERN, WE LIKE TO SEE THAT VEGETATION OCCUR WITH THE NATIVE SPECIES, LIKE THE PALO VERDE, MESQUITE, ACACIA, OR OTHER SHRUBS IN THE GROUND, OVER VEGETATION THAT IS CONDUCIVE TO THE LARGE MAMMALS, ALSO BIRDS, AND TO THE VARIOUS REPTILES THAT WILL REPOPULATE THIS AREA ONCE THE SITE IS CLOSED AND RESTORED.

IN CONJUNCTION WITH THAT MAINTENANCE, MAINTENANCE OF THE GROUNDWATER, WE WOULD LIKE TO SEE THAT ARID LAND REVEGETATION PROGRAM COVERING THE ENTIRE SITE AS A MITIGATION MEASURE FOR THE OPERATIONS.

ADDITIONALLY, WE REVIEWED OTHER ASPECTS OF THE PROJECT AS THEY RELATE TO THE THREATENED AND ENDANGERED SPECIES ACT. WE FEEL THAT NUMEROUS ACTS AND PROPOSALS ARE INCLUDED IN THE PLAN TO ADDRESS THE DESERT TORTOISE.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 769

Please see response to Comment No. 151. Catching water on the surface or side slopes of the proposed landfill could be a source of water infiltration to the landfilled MSW residue. Therefore, this recommendation was not incorporated into this Final EIS/EIR.

WE WOULD, IN CONJUNCTION WITH THE DESERT TORTOISE, FLAT HORN LIZARD, CONSIDER THAT SOME OF THOSE MITIGATION MEASURES, LIKE THE GRAVEL BEAMS, ON OR ABOUT THE RAILROAD CROSSINGS COULD BE JOINTLY UTILIZED FOR RECREATION PURPOSES.

770 AS PARKS AND RECREATION DIRECTOR FOR THE COUNTY, I WOULD LIKE TO ADDRESS THE GLAMIS SAND DUNES AREA THAT IS PRIMARY ATTRACTION FOR OFF-ROAD ENTHUSIASTS. I'M SPEAKING SOUTH GLAMIS DUNES, SOUTH OF 78. NORTH DUNES IS A CLOSED PROTECTED AREA FOR VARIOUS WILDLIFE SPECIES AND VEGETATION THAT IS SENSITIVE OR IN SOME CASES THREATENED.
WE WOULD LIKE TO SEE THE VEGETATION ENHANCEMENT ALONG THIS RAILROAD SPUR FOR CAMPING, ACCESS BACK INTO THE SOUTH DUNES BE UTILIZED BY USING THE RAILROAD CROSSINGS, SOME OF THE GRAVEL BEACHING, IN SUCH A WAY THAT IT WOULD CONTINUE TO ENHANCE THE USE OF THE SOUTH DUNES AND DISCOURAGE USE OF THE NORTH ALGADONES DUNES.

771 AS FAR AS OUR CONTINUED WILDLIFE PROTECTION ENHANCEMENTS, WE AGREE AND CONCUR WITH THE INVESTMENT OF A BIG GAME WATER SOURCE INVESTMENT. WE ALSO ARE CONCERNED

772 ABOUT THE HOST FEE. WE'D LIKE TO SEE MITIGATION BE ADDRESSED TO ESTABLISH A PERCENTAGE OF THAT HOST FEE FOR PUTTING MITIGATION ON THE PIPELINE, WHICH --

MR. HERVEY: I HAVE TO INTERRUPT YOU AT THIS TIME.

MR. RISTER: THANK YOU, SIR.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 770

Comment noted. Construction of the railroad spur would not encourage the use of the North Algodonas Dunes by off-road enthusiasts. Three crossings for vehicles would be provided to allow for continued public access to the area north of the proposed spur and the South Algodonas Sand Dunes.

Response to Comment No. 771

Comment noted.

Response to Comment No. 772

The potential future gas pipeline to Niland has been addressed to the fullest extent possible at this time. Future environmental review may be required prior to construction.

MR. HERVEY: NEXT SPEAKER IS LEON LESICKA.

MR. LESICKA: MY NAME IS LEON LESICKA. I REPRESENT DESERT WILDLIFE UNLIMITED, A LOCAL NONPROFITED ORGANIZATION, 4780 HIGHWAY 111, BRAWLEY. THERE IS TWO CONCERNS. THE OVERALL LOOKS PRETTY GOOD. TWO CONCERNS, 773 THOUGH, THAT WE'RE WORRIED ABOUT A LITTLE BIT. THE ADDITIONAL TRAFFIC ON THE RAILROAD WILL SEPARATE SOME OF THE ANIMALS FROM BEING ABLE TO GET TO SOME OF THE WATER SOURCES. AND THEN ALSO, THE ADDITIONAL TRAFFIC ALONG THE ROADWAY. THERE DEFINITELY HAS TO BE SOME ADDITIONAL MITIGATION FOR WATER SOURCES IN THAT AREA. THANK YOU.

MR. HERVEY: THANK YOU. NEXT SPEAKER, JUAN LOPEZ.

774 MR. LOPEZ: MY NAME IS JUAN LOPEZ. I JUST HAVE ONE COMMENT. I WOULD LIKE TO SUGGEST THAT A SECTION BE ADDED TO THE EIR, THAT IS, WHICH WILL IDENTIFY THE MONITORING REQUIREMENTS OF THE AGENCY IN THE DOCUMENTATION, THAT THE LOCAL LEVEL DEPARTMENT WOULD BE THE ENFORCEMENT AGENCY.

WE ARE CONCERNED THAT THE MONITORING REQUIREMENTS TO MITIGATE THE DEFINED IMPACTS, BOTH SIGNIFICANT AND OTHERWISE, WILL REQUIRE A LOT OF WORK ON THE LOCAL AGENCY -- LOCAL HEALTH DEPARTMENT. WE SPECIFICALLY WOULD LIKE TO SEE THE -- WHETHER OR NOT THE MANPOWER AND TECHNOLOGY IS AVAILABLE TO MONITOR AND TO COORDINATE WITH THE PERMITTING AGENCIES THAT WOULD BE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 773

Guzzlers would be established as described in Section 4.1.3.3 of this EIS/EIR.

Response to Comment No. 774

Please see response to Comment No. 298.

ISSUING PERMITS TO THESE -- TO THE PROJECT, AGENCIES LIKE THE REGIONAL BOARD MEETING, WATER QUALITY CONTROL BOARD, THE DEPARTMENT OF TRANSPORTATION, SO ON.

THANK YOU.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS JOHN MENVIELLE.

MR. MENVIELLE: HI, MY NAME IS JOHN MENVIELLE, 897 WEST ROSS ROAD IN EL CENTRO. I'M A THIRD GENERATION FARMER HERE IN IMPERIAL VALLEY. I WANT TO REFER TO THE AIR QUALITY AND AIR CULTURE OFFSETS ON CHAPTER 4 OF THE AIR QUALITY.

MR. HERVEY: ARE YOU REPRESENTING YOURSELF?

MR. MENVIELLE: YES, SIR. I'M A FARMER. I REPRESENT MYSELF. EXCUSE ME FOR THAT.

WE IN AGRICULTURE ARE GOING TO BE FACED IN THE SHORT FUTURE WITH NOT BEING ABLE TO BURN OUR AGRICULTURAL FIELDS OFF DUE TO THE AIR QUALITY EMISSIONS THAT ARE PUT INTO THE ENVIRONMENT.

775 THE LANDFILL WILL PROVIDE A PLACE FOR US TO TAKE OUR AGRICULTURAL WASTE AND TO DISPOSE OF IT AND THIS WILL HELP WITH THE OFFSETS AT THE LANDFILL. TO ME, THIS IS A WIN/WIN SITUATION FOR THE AGRICULTURAL INDUSTRY TO HAVE THIS LANDFILL HERE AND THAT IT WILL BE A BIG BENEFIT TO THE FARMERS BECAUSE WE ARE FACING A VERY SERIOUS PROBLEM WITH OUR EMISSIONS. I THINK THIS WILL BE EXCELLENT IN THAT CATEGORY.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 775

Comment noted; however, in the event that agricultural burning is prohibited in Imperial County, it is likely that the landfill would not be able to continue to get credit for diverting agricultural cuttings from burning.

THANK YOU.

MR. HERVEY: THANK YOU.

NEXT SPEAKER IS ERNIE WRIGHT.

776 MR. WRIGHT: I'M ERNIE WRIGHT AND I REPRESENT HAZARD PRODUCTION COMPANY BUSINESS IN THE NORTH COUNTY. AND I CAN TELL YOU THAT EMPLOYMENT IS EVERYTHING IN THE LOCAL AREA. WE'RE MUCH IN FAVOR OF THIS PROJECT. I THINK OVER SEVERAL YEARS WE HAVE BEEN IN OPERATION THE SAME COYOTES ATE SMALL DOGS AND CATS. GET OUT OF THE PLACE, AND IF YOU SEARCH AROUND A LITTLE BIT BEYOND THE LIMITS OF THE OPERATION, YOU STEP ON THE SAME RATTLESNAKES MAYBE. AND ALL OF THE THINGS THAT THEY ARE TALKING ABOUT, TECHNICALITIES CAN BE WORKED OUT WITH JUST A BIT OF THE NEGOTIATIONS. AND SO WE'RE FOR THE PROJECT. AND THAT'S ABOUT ALL THAT I HAVE TO SAY ON IT. THANK YOU.

MR. HERVEY: THANK YOU, SIR.

NEXT SPEAKER IS IRA HEAREN.

MR. HEAREN: THANK YOU, SIR. IRA HEAREN FROM THE CITY OF HOLTVILLE. MR. BRIDGES IS OUR REPRESENTATIVE. I HAD A COUPLE OF COMMENTS THAT HE DID NOT GET A CHANCE TO SAY THAT WILL ALSO BE INCLUDED IN HIS LETTER THAT HIS FIRM WILL SEND TO YOU FOLKS.

REGARDING THE VISUAL IMPACT OF THIS LANDFILL, THEY ALREADY STATED IN THEIR DRAFT EIS/EIR IT CANNOT BE

777 FULLY MITIGATED. MAYBE THE HOST FEES CAN BE USED TO BRING IN AND SUPPORT LOCAL RECYCLING PROJECTS SO THE LANDFILL

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 776

Comment noted.

Response to Comment No. 777

Please see response to Comment No. 18.

CAN GO FOR A LONGER PERIOD OF TIME WITH THE RECYCLED PROJECTS THE HOST FEES WOULD PROVIDE FOR.

THANK YOU.

MR. HERVEY: THANK YOU.

RICHARD KNIGHT.

MR. KNIGHT: I'M RICK KNIGHT. I REPRESENT THE CITY OF HOLTVILLE, ALSO. MR. BRIDGES, LIKE IRA SAID BEFORE, IS REPRESENTING THE CITY OF HOLTVILLE AND OTHER CONCERNED CITIES IN IMPERIAL VALLEY.

I HAVE A FEW COMMENTS. ONE THING THAT I WOULD LIKE TO BRING UP IS THAT I GOT INTO A DISCUSSION AND WAS ENLIGHTENED JUST A LITTLE WHILE BACK BY NO EXPERT.

778 WE WERE TALKING ABOUT WHAT GOES DOWN THE TOILETS, INTO THE TRASH CANS OF RESIDENTS OF AMERICA. AND I HAVE TO SAY THAT I THINK THE SIERRA CLUB HIT ON SOMETHING WHEN THEY WERE TALKING ABOUT THE HAZARDOUS WASTE THAT IS GAINED, THAT CANNOT BE MAYBE VISUALLY OR MECHANICALLY SEPARATED. BUT IT IS TRUE, THE CITIZENS OF AMERICA THROW EVERYTHING IN THEIR TRASH, FLUSH IT DOWN THE TOILETS.

I DO HAVE TO AGREE, BEING SOMEWHAT INVOLVED IN A LANDFILL WITH THE FIRM THAT I WORK FOR, THAT I DO BELIEVE THAT THE LANDFILL WILL BE ON THE UP AND UP, WITH ALL OF THE REGULATIONS AND LAWS AND SO FORTH BY THE FEDERAL AND STATE, COUNTY, GOVERNMENTS, AND STUFF. I'M SURE THAT THE LANDFILL WILL BE SAFE.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 778

Please see responses to Comment Nos. 319 and 320.

I AM CONCERNED ALSO ABOUT THE HOST FEES. IT LOOKS LIKE WHAT WE WERE TALKING ABOUT IS SOMEWHERE IN THE NEIGHBORHOOD OF SIX MILLION DOLLARS A YEAR UNDER FULL OPERATION, IF I'M NOT MISTAKEN. I REALLY FEEL THAT THOSE FEES OF THE LANDFILL COUNTS AS A REALITY AND SHOULD CERTAINLY INTEREST EVERY CITIZEN OF THE IMPERIAL VALLEY AND EVERY CITIZEN OF OUR BEAUTIFUL TOWNS.

779 THE IMPERIAL COUNTY SHOULD HAVE FULL USE OF THE LANDFILL. I THINK THAT IT SHOULD BE -- HAVE USE FOR THE LIFE OF THE LANDFILL. I BELIEVE THAT WE HAVE SOME VERY IMPORTANT PROBLEMS THAT ARE GOING ON WITH OUR LANDFILLS. THEY ARE REGULATED BY THE COUNTY, RUN BY THE COUNTY AT THIS TIME. I BELIEVE THAT WE SHOULD HAVE FULL ACCESS FOR ALL OF OUR REFUSE FOR ALL OF IMPERIAL COUNTY FOR THAT HUNDRED YEARS ESTIMATED LANDFILL.

I AM A LITTLE BIT CONCERNED AND IMPACTED BY 450-SQUARE-MILE MOUNTAIN OF TRASH. I KNOW THAT IT'S GOING TO BE REGULATED WELL AND SO FORTH. JUST LOOKING OVER THE EXISTING LANDSCAPE AND IMAGINING A MOUNTAIN THAT IS PROBABLY HIGHER THAN ANYTHING ELSE IN IMPERIAL VALLEY BESIDES MT. SIGNAL, MAYBE WOULD BE A SIGHT TO SEE.

OF COURSE, I'M NOT GOING TO BE THERE TO SEE IT WHEN IT GETS THAT TALL. I CAN'T READ THE REST OF MY NOTES, SO I'LL LEAVE IT AT THAT.

MR. HERVEY: SUBMIT IT IN WRITING, THEN. THANK YOU, SIR.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 779

Comment noted.

DANIEL EDWARDS.

MR. EDWARDS: GOOD EVENING, EVERYONE. MY NAME IS DAN EDWARDS, NOT THE GUY THAT WORKS FOR I.V. PRESS. I'M A TEACHER AT WILSON JUNIOR HIGH. I LIVE IN EL CENTRO. I REPRESENT MYSELF. I'M NOT REPRESENTING THE SCHOOL OR ANYBODY ELSE.

I'VE LIVED IN THIS VALLEY MOST OF MY LIFE. FOR ALL PRACTICAL PURPOSES, I GREW UP HERE. SINCE I WAS A KID, I'VE SEEN A LOT OF CHANGES IN THIS VALLEY, MOST OF THEM NEGATIVE. AND THAT KIND OF WORRIES ME. BEFORE I GET INTO ANY OF THAT, I'D LIKE TO ADDRESS A FEW THINGS WITH THIS ENVIRONMENTAL IMPACT REPORT.

780 ITEM 1 CONCERNING THE RAVENS. I DON'T KNOW HOW MANY OF YOU HAVE NOTICED THE INCREASE IN THE VALLEY OF RAVENS. THERE SEEMS TO BE MORE EVERY YEAR. THE TRASH DUMP IN MEXICALI ATTRACTS A NUMBER OF THEM. JUST AS A SPECIES, RAVENS ARE KNOWN TO BREED VERY WELL. THEY EAT A WIDE VARIETY OF FOOD, MOST OF WHICH WE WOULDN'T CONSIDER FOOD. THEY CAN TRAVEL MANY MILES AND CAN VERY EASILY MOVE INTO A NEW HABITAT.

THIS AREA IS NOT REALLY PRIME RAVEN HABITAT UNLESS THERE IS SOMETHING TO ATTRACT THEM. AS EVIDENCED BY WHAT HAPPENED TO L.A. TRASH IN LANCASTER, THAT ATTRACTED THE RAVENS, AND THE DESERT TORTOISE POPULATION UP THERE, IT REALLY WENT ON A DECLINE.

JUST GLANCING THROUGH THIS ENVIRONMENTAL IMPACT

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 780

The pofential for ravens to be attracted to the proposed landfill and then impact desert tortoise populations is addressed in Section 4.1.4 of this EIS/EIR. This potentially significant impacts would be mitigated as described in Section 4.1.3.3 of this EIS/EIR.

REPORT, I SEE ON PAGE 4-26 THAT THEY READILY ADMIT PREDATION BY RAVENS WOULD BE SIGNIFICANT.

NOW, I PAY TAXES. I'M SURE ALL OF YOU DO, ALSO. OUR OWN GOVERNMENT SPENT A LOT OF MONEY CHECKING OUT TORTOISE POPULATIONS IN THE NORTH PART OF THE COUNTY, NORTH PART OF RIVERSIDE COUNTY. WHY SPEND ALL THAT MONEY TO FIND AN AREA WHERE THE TORTOISE CAN SURVIVE ADEQUATELY? WHY GO AHEAD AND APPROVE SOMETHING THAT IS GOING TO DECIMATE THAT POPULATION. I DON'T SEE ANYTHING IN THIS ENVIRONMENTAL IMPACT REPORT THAT WOULD REALLY DEAL WITH THE INCREASE IN RAVENS THAT WE'RE GOING TO GET IF WE GET THIS LANDFILL.

781 MOST OF YOU KNOW OUR AIR IS HYDRO-OXIDE, CARBON DIOXIDE. WE HAVE A NUMBER OF HYDROCARBONS, PESTICIDES, PLANT POLLENS, MOLD SPORES, CARBON DIOXIDE, AND DUST. WORKING WITH THE YOUNG PEOPLE OF OUR VALLEY, THERE HAS BEEN A GREAT INCREASE IN RECENT YEARS IN RESPIRATORY PROBLEMS.

LOOKING THROUGH THIS ENVIRONMENTAL IMPACT REPORT, I SEE NOTHING AT ALL ADDRESSING ANYTHING ABOUT ASTHMA OR ANY KIND OF BRONCHITIS OR OTHER RESPIRATORY AILMENTS. OUR STUDENTS' EDUCATION -- OUR STUDENTS' HAVE TO GO TO THE OFFICE SO THAT THEY CAN GET THEIR INHALERS. THEY CANNOT PARTICIPATE IN PHYSICAL ACTIVITIES, IN P.E., THE AIR IS TOO BAD. THEY WILL WHEEZE TOO BADLY.

ROUTINELY, THE E P.A. DULLS OUR COUNTY AS

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 781

Please see response to Comment No. 21.

EXCEEDING THE HEALTHFUL LEVELS OF PARTICULATES. MAINLY, DUST. IT'S READILY ACKNOWLEDGED IN THIS ENVIRONMENTAL IMPACT REPORT THAT THE LANDFILL WILL INCREASE THE DUST PROBLEM IN IMPERIAL COUNTY. IS THAT SOMETHING WE NEED?

782 LASTLY, ONE OF THE THINGS THAT I'VE SEEN RECENTLY IS IMPERIAL VALLEY TRADING WITH LOS ANGELES REGION OUR WATER. WHAT DID WE GET FOR IT? FALLOW CORN FIELDS, BUREAU AGRICULTURAL JOBS, INCREASE IN DUST PROBLEMS. NOW WE'RE GOING TO TAKE THEIR TRASH? WHY ARE WE GOING TO BE THE DUMPING GROUNDS FOR THE METROPOLITAN AREAS ON THE COAST? IS THAT WHAT WE WANT FOR IMPERIAL VALLEY? WE WANT US TO BE KNOWN AS "OH, YEAH, MAXIMUM SECURITY STATE PRISONS, YOU HAVE TRASH, SEND IT TO IMPERIAL VALLEY ON THE TRAIN"?

I THINK THAT WE SHOULD BE PROMOTING OUR VALLEY FOR THE DESERT BEAUTY THAT IS HERE -- HOPEFULLY THAT WILL INCREASE IF OUR CONGRESS DOES PASS THE DESERT PROTECTION ACT -- AS A BETTER PLACE TO LIVE.

ONE QUESTION. THIS IS NOT REALLY FOR THE B.L.M. I'D LIKE TO KNOW WHERE OUR COUNTY BOARD OF SUPERVISORS ARE TONIGHT?

UNIDENTIFIED SPEAKER: BEEN IN A MEETING IN L.A.

MR. HERVEY: VINCENT J. CUEVAS.

MR. CUEVAS: MY NAME IS VINCENT CUEVAS. I'M A RESIDENT OF CALEXICO, LIFE-LONG RESIDENT OF IMPERIAL COUNTY. I JUST RECEIVED THIS IMPACT REPORT TODAY. I HAVE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 782

Comment noted.

783

REALLY NO GENERAL COMMENTS. I WANTED TO COME HERE TO BE EDUCATED. I AM MORE INTERESTED IN THE HOST FEES OR SOCIOECONOMIC AREA. THAT'S MY AREA THAT I'M INTERESTED.

I WANT TO PUT DOWN THAT I'D LIKE TO THINK THAT THERE HAS BEEN PROPOSALS FOR DIFFERENT HOST FEES. ONE AREA THAT I WAS MORE OR LESS INTERESTED IN WAS TO DEVELOP A CULTURAL BIOTECH AREA UNIVERSITY SO THAT WE COULD PREPARE FOR THE LONG RANGE OF DEVELOPING AND, I GUESS, TO EDUCATE OUR GENERAL PUBLIC.

AND ANOTHER AREA THAT I WAS INTERESTED IN WAS THE AIR QUALITY AS I'VE SEEN THE AIR QUALITY GO DOWN, OR THAT IS TO SAY, IN THE SOUTH END IT'S VERY BAD BECAUSE OF THE INCREASED INDUSTRY IN MEXICALI. YOU SEE IT WHEN YOU DRIVE SOUTH.

SO I AM CONCERNED ABOUT THE LONG-RANGE AIR QUALITY THAT WE WOULD HAVE IN IMPERIAL COUNTY.

THANK YOU.

MR. HERVEY: ARE YOU REPRESENTING YOURSELF, SIR?

MR. CUEVAS: I'M A TEACHER, BUT I REPRESENT MYSELF.

MR. HERVEY: THANK YOU.

BRIAN NAPIER.

MR. NAPIER: MY NAME IS BRIAN NAPIER. I LIVE ON REVELS AVENUE IN SEELEY. I'M REPRESENTING MYSELF TONIGHT. I HAVEN'T HAD A CHANCE TO SEE THAT REPORT. I

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 783

Comment noted, air quality impacts are addressed in Section 4.1.8 of this EIS/EIR.

HAVE NOT HAD A CHANCE TO READ IT. LOOKS IMPRESSIVE AS DO ALL THE LADIES AND GENTLEMEN IN THIS ROOM TONIGHT.

784 THE POINT I'D LIKE TO MAKE AT THIS POINT IN TIME IS THAT WE MUST PAY MORE ATTENTION TO THE FACT THAT DESPITE ALL OUR BEST EFFORTS TO MAKE SURE THINGS ARE DONE OPTIMALLY, PROBLEMS WILL OCCUR. THIS PROJECT WILL BE HERE LONG AFTER WE ARE GONE, LONG AFTER OUR CHILDREN ARE GONE.

WE MUST TAKE STEPS TO ENSURE THAT PROCESSES ARE IN PLACE IN CASE THE COMPANIES INVOLVED DO NOT COMPLY WITH THEIR REQUIREMENTS, OR IF, IN FACT, PROBLEMS OCCUR IN THE FUTURE THAT HAVE NOT BEFORE BEEN SEEN AT THIS POINT.

FAILURE TO DO THIS WILL PLACE AN EXTREMELY HARD BURDEN ON OURSELVES AND OUR CHILDREN.

THANK YOU.

MR. HERVEY: THANK YOU.

PAUL BERRYMAN, PLEASE.

MR. BERRYMAN: MY NAME IS PAUL BERRYMAN. I RESIDE AT 215 WEST HAMILTON AVENUE HERE IN EL CENTRO. I AM A PROPERTY OWNER. I'M HERE TO REPRESENT MY KIDS, MY GRANDKIDS, AND MY GREAT-GRANDKIDS, ALL THE COYOTES, RABBITS, AND RATTLESNAKES, AND TURTLES, THOSE TORTOISES.

785 I AGREE WITH THE SIERRA CLUB ASSESSMENT WITH THIS PROJECT, ALSO. THE REPORT INDICATES THAT THIS PROJECT WOULD GENERATE DUST TO FINE PARTICLES THAT CAUSES RESPIRATORY IRRITATION AND ILLNESS. IT APPEARS THAT FROM THE HOST FEES, THAT IMPERIAL COUNTY IS GOING TO BE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 784

Comment noted. The financial assurances that are required by law will protect the citizens of Imperial County in the event corrective action is needed, to close the landfill at any time during its operation, and to care for the proposed landfill after closure.

Response to Comment No. 785

Comment noted.

786 FINANCIALLY STABLE, BUT IT ALSO APPEARS THAT THE PEOPLE THAT LIVE IN IMPERIAL COUNTY ARE GOING TO HAVE DIFFICULTY BREATHING. SO IT APPEARS THAT'S A TRADE-OFF THEY ARE GOING TO MAKE WITH THIS PROJECT.

THANK YOU.

MR. HERVEY: THANK YOU.

DILDA MCFADDEN.

MS. MCFADDEN: I'M DILDA MCFADDEN, 2030 HEIL. I'M REPRESENTING MYSELF THIS EVENING. I HAD AN OPPORTUNITY TO REVIEW THE ECONOMIC -- SOCIOECONOMIC IMPACT PORTION OF THE EIR. I'VE BEEN OUT TO THE SITE AND LOOKED AT THE SITE. I'D LIKE TO SPEAK TO THE ISSUE OF CREATING JOBS.

IN THE CONSTRUCTION PHASE, THIS PROPOSAL WOULD CREATE 15 JOBS THAT ARE DESPERATELY NEEDED HERE IN IMPERIAL COUNTY. IF WE LOOK AT THE SECONDARY POSITION, WE'RE TALKING ABOUT OVER 250 JOBS, WITH A PAYROLL OF OVER EIGHT MILLION DOLLARS THAT WE SERIOUSLY NEED HERE IN IMPERIAL COUNTY.

IF YOU LOOK AT THE LANDFILL, GOLD FIELD POSITION, THEY RANGE BETWEEN $30,000. $7,000 INCREASE. IF WE LOOK AT LONG-TERM BENEFITS IN CONSTRUCTION WITH THIS PROJECT, WE'RE TALKING ABOUT 1.9 MILLION DOLLARS.

IF WE TAKE THE PAYROLL BENEFITS OVER THE NEXT 20 YEARS, WE'RE TALKING ABOUT 250 MILLION DOLLARS COUNTY WIDE HERE IN IMPERIAL COUNTY. IF WE LOOK AT THE EXPENDITURES

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 786

Please see response to Comment No. 21.

THAT ARE GOING TO BE EXPENDED WITH THIS PROJECT IN THE NEXT 20 YEARS, WE'RE TALKING ABOUT 500 MILLION DOLLARS. THE COUNTY REVENUE THAT COULD BE BENEFITTED FROM THIS PROJECT IN THE NEXT 20 YEARS IS OVER 100 MILLION DOLLARS.

787 I STRONGLY SUPPORT THIS PROJECT BECAUSE OF THE ECONOMIC IMPACT THAT IT WOULD HAVE ON THE RESIDENTS OF IMPERIAL COUNTY, JOBS IT WOULD CREATE. HOPEFULLY YOU BROADEN OUR ECONOMIC BASE. I STRONGLY SUPPORT THE MESQUITE LANDFILL PROJECT.

THANK YOU.

MR. HERVEY: RICARDO VALENZUELA, PLEASE.

MR. VALENZUELA: GOOD EVENING. MY NAME IS RICARDO VALENZUELA. I'M HERE AS AN ECONOMIC SPECIALIST FOR HEBER UTILITY DISTRICT. MY MANAGER SPOKE BEFORE. I

788 SEE THE POTENTIAL FOR THIS REGIONAL LANDFILL TO BE A SOLUTION FOR EXISTING PROBLEMS WITHIN ALL OF IMPERIAL COUNTY TODAY.

WE HAVE A SOLID WASTE PROGRAM THAT SERVES ALL OF IMPERIAL COUNTY THAT IS OUT OF CONTROL. I DON'T KNOW WHO -- IF ALL OF YOU ARE AWARE OF IT, NEXT WEEK ON MONDAY -- ON THE 31ST OF MAY, THE IMPERIAL COUNTY BOARD OF SUPERVISORS WILL HOLD A PUBLIC HEARING TO ADDRESS THE ISSUE OF THE INCREASE IN SOLID WASTE FEES FOR THE COUNTY OF IMPERIAL. THEY ARE LOOKING AT A 35 PERCENT INCREASE IN FEES IN ONE YEAR.

I HEARD OF INFLATION BEING FOUR PERCENT, BUT

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 787

Comment noted.

Response to Comment No. 788

Comment noted.

INFLATION BEING 35 PERCENT IS REALLY, IN MY OPINION, RIDICULOUS, AND WE HAVE TO FIND A SOLUTION TO THE PROBLEM. THE SOLUTION, I FEEL, IS THAT THE COUNTY OF IMPERIAL BEING IN THE BUSINESS OF HAVING SOLID WASTE, WE DON'T HAVE THE VOLUME.

IF WE GO BACK TO THE EIR/EIS TABLE 1-1. IF WE LOOK AT THE -- AT THE WASTE GENERATED BY THE COUNTY OF IMPERIAL IN ONE YEAR, IT'S 99,000 TONS. THE COUNTY OF LOS ANGELES GENERATES 13,500,000 TONS OF TRASH A YEAR. IF THEY ARE LOOKING AT BEING ABLE TO BRING IN THROUGH RAILROAD THE TRANSFER STATIONS AT LEAST 20,000 TONS A DAY INTO THE LANDFILL, THEY WOULD, IN A YEAR'S TIME, APPROXIMATELY BRING IN ABOUT SEVEN AND A HALF BILLION TONS.

WHAT OUR SOLID WASTE COMPARED TO L.A. -- OR WHAT THE LANDFILL WOULD RECEIVE IS LESS THAN ONE PERCENT. I HEAR CITIES ASKING FOR A PIECE OF THE PIE, PIECE OF THE HOST FEE. RIGHT NOW WHAT I'D LIKE TO SEE IS, I'D LIKE TO SEE THE COUNTY GET OUT OF THE SOLID WASTE BUSINESS.

I'D LIKE REFUSE COLLECTION, TRASH RATE SERVICE, STABILIZED OVER A PERIOD OF THREE, FIVE YEARS WHEREBY WE CAN LET OUR COMMUNITY RECEIVE AND BASICALLY EXPECT NOT TO GET THIS BIG INCREASE IN RATE BECAUSE AT THIS POINT IN TIME, THE HEBER PUBLIC UTILITY DISTRICT STARTED A REFUSE PROGRAM IN 1989, '90. THEY INVESTED MONEY, YOU KNOW, DID A PROGRAM TO BUY A TRUCK, START THEIR OWN COLLECTION

PROGRAM BECAUSE THE ENTIRE COMMUNITY BASICALLY WAS BURNING THEIR TRASH OR TAKING THEIR BURNT BARRELS OF TRASH OUT TO THE COUNTY DUMP. AGAIN, THAT WAS A MAJOR CAUSE OF POLLUTION. IF MR. SPARTAS FROM AIR POLLUTION AND CONTROL DISTRICT WAS HERE, HE COULD SPEAK TO THE ISSUE.

WE STARTED A REFUSE PROGRAM TO ADDRESS THE PROBLEM. AT THIS POINT IN TIME, THE BOARD OF DIRECTORS OF THE HEBER UTILITY DISTRICT IS SERIOUSLY CONSIDERING DOING AWAY WITH THE REFUSE PROGRAM. I GUESS THAT IS GOING TO HAPPEN. PEOPLE ARE GOING TO GO BACK TO BURNING, IN ESSENCE, CAUSING MORE PROBLEMS, HEALTH, AIR POLLUTION PROBLEMS.

AGAIN, MY MAJOR CONCERN IS THAT OUR VOLUME OF REFUGE OF TRASH IS INSIGNIFICANT COMPARED TO WHAT THIS REGIONAL LANDFILL CAN ACCOMMODATE. I FEEL VERY STRONGLY THAT THE EIR/EIS SHOULD ADDRESS SPECIFICALLY WHAT INCENTIVES WILL BE TRIED BY THE COUNTY OF IMPERIAL AS FAR AS -- FIRST OF ALL, IT'S THE HOST -- IT SHOULD BE ALLOWED TO TAKE THEIR TRASH TO THE LANDFILL. OF COURSE, THERE IS A COST, BUT I DON'T SEE THE COST THE SAME AS WHAT WE ARE EXPERIENCING NOW.

789

THANK YOU.

MR. HERVEY: THANK YOU.

MARTY TRACEY, PLEASE.

MR. TRACEY: MY NAME IS MARTY TRACEY. I LIVE AT 1729 LENREY HERE IN EL CENTRO.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 789

Imperial County MSW residue would be accepted at the proposed Mesquite Regional Landfill subject to the requirements in the last paragraph of Section 2.1.8.2 of this EIS/EIR.

JUST A BRIEF COMMENT. I, TOO --

MR. HERVEY: ARE YOU REPRESENTING YOURSELF?

MR. TRACEY: YES, SIR. I REPRESENT MYSELF.

MR. HERVEY: THANK YOU.

MR. TRACEY: I'M ALSO CONCERNED ABOUT THE IMAGE IMPERIAL COUNTY IS DEVELOPING IN TERMS OF BUILDING A LOT OF PRISONS, NOW TALKS OF MAKING DUMPS. I'M ALSO CONCERNED ABOUT SOME OF THE ENVIRONMENTAL IMPACTS RAISED AS PART OF THE DRAFT EIS/EIR. I THINK AS IT STANDS NOW, THE CONDITIONS THAT ARE INVOLVED IN THIS PROJECT ARE VIABLE. AND AS FAR AS THEY ARE CONCERNED, THEY WILL REMAIN VIABLE THROUGH THE TERM OF THE PROJECT, BUT THAT'S NOT A GUARANTEE.

ULTIMATELY AT SOME POINT, WHETHER IT'S A HUNDRED YEARS FROM NOW OR 20 YEARS FROM NOW -- 20 YEARS FROM NOW -- COMPANIES DON'T REMAIN VIABLE. THERE IS A DUMP AT THAT SITE. IMPERIAL COUNTY -- THE PEOPLE OF IMPERIAL COUNTY WILL BE RESPONSIBLE AND LIABLE FOR THAT DUMP.

790 I WOULD SPEAK TO THE IMPERIAL COUNTY SUPERVISOR THAT IS HERE TONIGHT AND SAY TO HIM THAT I RECOMMEND IN THE STRONGEST TERMS THAT IF THIS DUMP GETS THROUGH, THAT THE HOST FEES THAT ARE PAID BE COMMENSURATE WITH THE LONG-TERM LIABILITY THAT IMPERIAL COUNTY -- PEOPLE OF IMPERIAL COUNTY WILL BE STRAPPED WITH.

PERSONALLY, I DON'T THINK SIX MILLION DOLLARS A YEAR CUTS IT. I THINK IT SHOULD BE SIGNIFICANTLY HIGHER

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 790

Long-term liability would be mitigated by the provision of financial assurances described in Section 2.1.18 of this EIS/EIR. The host fees are a separate consideration that are not required to mitigate any environmental impacts of the proposed landfill. Please see response to Comment No. 207.

THAN THAT. I THINK THAT THE COUNTY NEEDS THE MONEY, YES. THEY NEED THE JOBS. THE WAY THINGS ARE GOING IN THIS MEETING TONIGHT, IT ALMOST SOUNDS LIKE A DONE DEAL.

BE THAT AS IT MAY, THE COUNTY SHOULD COMMAND A GOOD PRICE FOR BEING THE HOST AND THAT MONEY SHOULD NOT ONLY BE APPLIED TO THE VARIOUS COUNTY PROJECTS THAT THEY MIGHT WANT TO SPEND IT ON, BUT A GOOD PORTION OF THAT SHOULD BE SET ASIDE FOR THE EVENTUALITY THE COMPANIES DON'T MAKE IT, THE COUNTY IS LEFT WITH THE DUMP.

OR IF IT RUNS A HUNDRED YEARS AND THE PREVIOUS FUNDS THAT HAVE BEEN SET ASIDE OVER THAT PERIOD OF TIME TO MAINTAIN THE DUMP RUN OUT, THAT THERE IS ADDITIONAL MONIES 30, 40, 50 YEARS DOWN THE LINE TO TAKE CARE OF PROBLEMS THAT COME UP.

THANK YOU.

MR. HERVEY: THANK YOU.

RUBEN JACOBO, PLEASE.

MR. JACOBO: MY NAME IS RUBIN JACOBO. I DON'T REPRESENT ANYONE. I'VE LIVED IN THE VALLEY MOST OF MY LIFE. I REALLY ENJOYED THE COMMENTS MADE BY THESE GENTLEMEN OVER HERE IN THE SIERRA CLUB. I SUPPORT GIL MCFADDEN FOR THE VALLEY. A HUNDRED JOBS DOES NOT JUSTIFY NO LANDFILLS IN IMPERIAL VALLEY. EITHER FIVE MILLION OR A HUNDRED MILLION DOLLARS, WE DON'T WANT ANYBODY'S TRASH IN IMPERIAL VALLEY, THIS BEAUTIFUL VALLEY OF OURS.

IN A HUNDRED YEARS, GOD KNOWS WHAT THE WAY IT'S

791

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 791

Comment noted.

GOING TO LOOK HERE IN IMPERIAL VALLEY. IF WE STOP OPERATION, IT COULD ONLY BE A DISASTER TO THE COMMUNITY. JUST LIKE I SAID, I'M NOT HERE TO REPRESENT ANYONE. IN FACT, I AM WORKING OVERTIME. I AM NOT GETTING PAID TO BE HERE LIKE SOME GENTLEMEN HERE WHO HAVE A SPECIAL INTEREST. THEY WANT TO FILL THEIR POCKETS WITH OUR MONEY.

THIS KIND OF OPERATION COULD SABOTAGE THE ENVIRONMENT, AQUA SYSTEM, VEGETATION, EVERYTHING THAT IS A GREAT RISK. ALL YOU HAVE TO DO IS LOOK AROUND THE NATION, READ WHAT IS GOING ON AROUND. NOTHING BUT TROUBLE.

WE DON'T WANT ANYTHING FROM L.A. OR ANYTHING ELSE, DAMAGING THE SUBSOIL, ANIMAL LIFE DEVASTATION, TO THIS VALLEY HERE. FIRST THEY TAKE THE GOLD, NOW THEY BRING THE TRASH FOR THE GOLD.

IT'S A GREAT RISK. ALL THEY WANT IS MONEY IN THEIR POCKET. I SAY THAT AGAIN. THE PEOPLE WHO TALK ABOUT BRINGING ALL THE PROBLEMS TO THE VALLEY HAVE TO NOT LOVE THE VALLEY, HAVE NO ATTACHMENT TO THE VALLEY. NOTHING BUT MONEY. WE DO HAVE HIGH UNEMPLOYMENT. WE ALWAYS DO BECAUSE WE ARE SO CLOSE TO THE BORDER.

WHAT THE FARMER SAID, IT WILL BENEFIT THE FARMER. THEY HAVE BEEN FARMING SINCE 1913, 1915. THEY DON'T NEED LANDFILL FROM L.A. WE DON'T NEED TRASH FROM L.A. WE GET ORGANIC MATERIAL IN THE VALLEY. THAT'S ENOUGH. NOW THEY WANT TO PUT THE WATER FROM THE SALTON

SEA BACK INTO MEXICO, BRING THE TRASH BACK FROM L.A. TO HERE. I DON'T UNDERSTAND IT. LET THEM KEEP ALL THEIR TRASH.

MR. HERVEY: THANK YOU.

FAYE HARTFIELD, PLEASE.

MS. HARTFIELD: GOOD AFTERNOON. MY NAME IS FAYE HARTFIELD, AND MY ADDRESS IS 276 EAST NEIL ROAD, EL CENTRO, CALIFORNIA. I'M HERE TO REPRESENT MYSELF AND MY FAMILY. AND FIRST OF ALL TONIGHT ON THE RECORD, I'D LIKE TO SAY THAT I OBJECT TO THE LIST FOR RECEIVING INFORMATION ABOUT THE LANDFILL AND I HAVE NOT RECEIVED A COPY OR DRAFT OF THIS PROPOSED MESQUITE LANDFILL, THE EIS OR THE EIR REPORT. I WOULD LIKE TO RECEIVE ONE. AND I WON'T BE ACTUALLY MAKING ANY COMMENTS FROM THAT UNTIL I ACTUALLY SEE IN IT.

792

I DO HAVE COMMENTS AS A SUPPORTER OF THE LANDFILL, BECAUSE AT THE BEGINNING OF THE LANDFILL -- WELL, THE PROPOSAL FOR HAVING A LANDFILL -- I HAVE BEEN A SUPPORTER BECAUSE OF ONE OF THE PEOPLE THAT IT'S IN CHARGE OF TRYING TO GET IT HERE. MY HUSBAND IS AN EMPLOYEE OF THE SANTA FE MINE MESQUITE. WE HAD AN OPPORTUNITY TO BE ONGOING SUPPORTERS AND HAVE INFORMATION ON THE IMPACT OF THIS LANDFILL.

793

PERSONALLY MYSELF, I THINK THAT IT WOULD BE GOOD FOR THE IMPERIAL VALLEY BECAUSE OF THE ECONOMIC REASON. I DO HAVE CONCERNS ABOUT THE ENVIRONMENTAL STANDPOINT. BUT

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 792

People who attended and provided their name and address on the sign-in sheets at the scoping meetings in May of 1992, responded in writing to the NOP or NOI issued in May of 1992, or otherwise requested the BLM El Centro Resource Area office or County of Imperial Planning and Building Department to place them on the mailing list prior to completion of the Draft EIS/EIR received copies of the Draft EIS/EIR. By making your comment at the Public Hearing, you were added to the mailing list and received a copy of this Final EIS/EIR.

Response to Comment No. 793

Comment noted.

I FEEL THAT THE PRECAUTIONS THAT HAVE BEEN TAKEN, THE DUTIES THAT HAVE BEEN DONE, I'M ALMOST CONFIDENT TO SAY THAT I THINK THEY ARE TAKING IT SERIOUS, THE CONCERNS OF THE CITIZENS AND THE HABITAT OF THE GLAMIS AREA ON -- EXCUSE ME -- IN THE SAND DUNES OUT THERE. I THINK EVERYTHING HAS BEEN TAKEN INTO CONSIDERATION TO PRESERVE THE WILDLIFE FOR THE TORTOISES, PER SE, RATTLESNAKES, ALL THOSE TYPES OF THINGS.

I'M CONFIDENT THAT THEY ARE GOING TO MAKE THEIR MOST IMPORTANT EFFORTS TO DO WHAT THEY SAID THAT THEY WERE GOING TO DO. I DO HAVE A CONCERN ABOUT THE RISING OF THE RESPIRATORY PROBLEMS FROM THE DUST, BEING THAT I HAVE A CHILD THAT HAS PROBLEMS WITH ASTHMA RIGHT NOW BECAUSE WE ARE COUNTY RESIDENTS, AND FROM ALL OF THE PESTICIDES THAT ARE IN THE AIR FROM THE FARMING. I KNOW THAT THIS IS GOING TO BE A HIGH DUST AREA THAT IS PRESENTED FROM THE LANDFILL.

794 I WOULD LIKE TO SEE THE LANDFILL WITH A DONATION -- OR WITH A PROPOSED -- PROPOSAL OF SOME KIND TO AID THE IMPERIAL COUNTY RESIDENTS, AND MEDICAL AID FOR THE RAISING OF THESE TYPE OF PROBLEMS AS WELL AS SOME OF THE FEES THAT THEY ARE GOING TO HAVE TO BE PAID TO BE HERE. ALSO, I WOULD LIKE TO SEE THAT THE IMPERIAL VALLEY BENEFIT FROM THIS LANDFILL AS FAR AS OUR DUMPING OF TRASH.

LIKE I SAID, AS A COUNTY RESIDENT VISITING LANDFILLS, WE HAVE NOW SEEN HOW THEY ARE NOT BEING

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 794

Please see responses to Comment Nos. 21 and 789.

CONTROLLED AND I THINK THAT THE ENVIRONMENTAL ASPECT OF IT IS NOT -- THERE IS NO PRECAUTIONS THAT ARE BEING TAKEN TO MAKE SURE THAT THINGS ARE SAFE. AND LIKE I SAID, I AM DEFINITELY A SUPPORTER OF THIS.

I WOULD ALSO LIKE TO SAY TO SOME OF THE OTHER COMMENTS THAT HAVE BEEN MADE ABOUT THE HUNDRED-YEAR SPAN -- LIFE-SPAN OF THIS LANDFILL, SPIRITUALLY SPEAKING, YOU KNOW, NONE OF US HAS PROMISED TOMORROW AND I THINK THAT, YOU KNOW, FROM THAT STANDPOINT, YOU KNOW, I THINK THAT IF WE JUST TAKE THIS ONE DAY AT TIME, IT'S GOING TO BE PROBLEMS. I THINK THERE ARE PROBLEMS THAT EVERYBODY WILL TRY TO WORK OUT AS WE GO. IF THERE IS SOMETHING THAT NEEDS TO BE HANDLED, I THINK THAT THE MESQUITE REGIONAL LANDFILL -- I THINK THEY WOULD ADDRESS THE PROBLEM WITH THE SERIOUSNESS OF WHAT IS GOING ON WITH IT. THANK YOU FOR YOUR TIME.

MR. HERVEY: THANK YOU.

ELIZABETH LOREIZENA.

MS. LOREIZENA: I'M ELIZABETH LOREIZENA, 2295 EAST HIGHWAY 78. THERE IS NOT MUCH BETWEEN -- OH.

MR. HERVEY: ARE YOU REPRESENTING YOURSELF?

MS. LOREIZENA: YES. I'M REPRESENTING MYSELF.

MR. HERVEY: THANK YOU.

MS. LOREIZENA: THERE IS NOTHING BETWEEN WHERE I LIVE AND THE DESERT. MY HOUSE IS THE LAST ONE BEFORE YOU HIT THE HIGH LINE. I THINK THAT PROBABLY ONE OF MY MAJOR

CONCERNS IS THE TRAFFIC ON THE HIGHWAY. I HAVE LIVED WHERE I AM NOW FOR THE LAST EIGHT YEARS AND HAVE SEEN TOXIC WASTE SPILLS INTO THE CANAL THAT FEEDS THE WATER TO THE HOUSE THAT I LIVE IN. AND I REALLY DIDN'T COME HERE TONIGHT TO SAY ANYTHING, BUT I NEEDED TO SAY THAT.

795 I DON'T THINK I REALIZED THAT THERE WAS GOING TO BE A MOUNTAIN THAT WAS GOING TO BE 450 FEET HIGH. WHEN I LOOK OUT MY KITCHEN WINDOW, I SEE LAND. I SEE SAND DUNES. AND I CAN'T EVEN IMAGINE WHAT IT WOULD BE LIKE TO LOOK OUT THERE AND SEE A 450 FOOT MOUNTAIN THAT IS HIGHER THAN THE ONES THAT ARE ALREADY THERE. I THINK THAT THE

796 RECYCLING PROJECTS SHOULD BE INSTITUTED AND CONTROLLED IN THE AREAS THAT PEOPLE ARE GOING TO BRING THEIR TRASH TO OR TRASH FROM.

797 AND AS FAR AS JOBS GO, IT WOULD PROBABLY BRING A FEW JOBS IN HERE. I THINK THE PEOPLE THAT WOULD END UP WORKING HERE WOULD NOT BE THE PEOPLE THAT LIVED HERE. THEY WOULD BE PEOPLE THAT ARE BROUGHT FROM OUTSIDE.

I ALSO WORK AT THE HOSPITAL IN BRAWLEY. I'M NOT REPRESENTING THEM, BUT I WORK IN THE CARDIOPULMONARY DEPARTMENT. I HAVE WORKED THERE FOR SOME TIME. I HAVE SEEN AN INCREASE IN RESPIRATORY PROBLEMS. I ALSO LIVE OUT IN THE COUNTRY. I JUST STARTED PAYING PROPERTY TAXES FOR THE FIRST TIME THIS YEAR AND GOT A NOTICE ON SOME LAND FEES THAT I JUST ACQUIRED THAT SAID I LIVED IN THE COUNTRY, THERE WAS CERTAIN THINGS THAT I WAS GOING TO HAVE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 795

Visual impacts would be significant and unmitigable as described in this EIS/EIR.

Response to Comment No. 796

Please see response to Comment No. 369. Increased recycling in communities originating MSW would not mitigate the visually significant impacts identified in this EIS/EIR. By limiting the daily volumes of MSW that could be received at the proposed landfill (EIS/EIR Alternative II) the landfill would take approximately 165 years to reach its final height.

Response to Comment No. 797

Please see responses to Comment Nos. 669 and 670.

TO EXPECT IF I LIVED OUT THERE. IT DIDN'T SAY ANYTHING ABOUT A TRASH DUMP. THANK YOU.

MR. HERVEY: THANK YOU.

ORVILLE HANKS, PLEASE.

MR. HANKS: MY NAME IS ORVILLE HANKS, BRAWLEY, CALIFORNIA. I LIVE AT 1545 EAST 'I' STREET. I'M ENGAGED IN FARM LABOR FIELDWORK. AND I AM HERE REPRESENTING MYSELF AND POSSIBLY ANOTHER ENDANGERED SPECIES NOT QUITE MENTIONED IN THE ENVIRONMENTAL IMPACT. THAT IS THOSE OF THE SMALL HOMEOWNER. I'VE LIVED IN THIS VALLEY SOME 55 -- NO, MORE THAN THAT -- 60 YEARS NOW.

AS TIME HAS PROGRESSED, THE VALLEY HAS BECOME MORE PROGRESSIVE. THAT PROGRESS HAS BEEN POISONS THAT WAS SUPPOSED TO HAVE BEEN THE PANACEA FOR BUSINESS IN IMPERIAL COUNTY. IT DID NOT HAPPEN. IT DID NOT CLEAR OUR AILS. NOW WE'RE TALKING ABOUT A LANDFILL THAT COMPLETELY BOGGLES MY MIND.

I'M A SIMPLE OLD FARM BOY. I CAN'T IMAGINE 200 MILLION DOLLARS, 20,000 TONS -- WHATEVER THEY ARE TALKING ABOUT -- IN TRASH. THIS OLD COUNTRY BOY ON SUNDAY MORNING CAN'T GET BISCUITS AND MOLASSES TO COME OUT EVEN, LET ALONE THAT KIND OF MONEY. BUT THE MORE SIMPLE THINGS OF LIFE I DO UNDERSTAND. I WATCHED THE CITIES. I ENDORSED AND PASSED A UTILITY TAX WHICH FALLS UPON THE HOMEOWNER, THE RESIDENTS OF EACH TOWN, EACH CITY IN THIS COUNTY.

WE'VE SEEN TAXES INCREASE ON OUR SCHOOLS AND I

FAIL TO SEE HOW WE'RE GOING TO BRING IN ANOTHER 200 PEOPLE, 150 PEOPLE, AND THE IMPACT THIS IS GOING TO HAVE ON THE CITIES AND SCHOOLS. HOW MUCH LONGER WE, AS INDIVIDUAL TAXPAYERS, SMALL HOMEOWNERS, WHATEVER, CAN AFFORD THIS KIND OF PROGRESS -- SOMEWHERE IN THIS ENVIRONMENTAL IMPACT -- I KNOW IT'S ENVIRONMENTAL, ENVIRONMENTAL HAS A LOT TO DO WITH THOSE OF US ON THE BOTTOM END OF THE ECONOMIC SCALE. I WOULD LIKE TO KNOW HOW THIS IS GOING TO HELP ME AS A HOMEOWNER. HOW AM I'M GOING TO PAY MY TAXES, PAY THE INCREASE IN UTILITY TAXES AND WHATEVER, ESPECIALLY FROM CITIES THAT DON'T MANAGE THE BUDGET SO WELL?

UNFORTUNATELY SOME OF US LIVE THERE. BUT I THINK THIS IS SOMETHING THAT I WOULD HOPE THE BOARD OF SUPERVISORS WOULD TAKE A LOOK AT WHENEVER THEY GET THEIR BIG CHUNK, THEY'D LOOK AT THE CITY'S INFRASTRUCTURE AND THE SCHOOLS. THAT'S THE FUTURE OF THE IMPERIAL VALLEY IS WHETHER WE EXIST ON THE HOME FRONT.

798

I KNOW THERE IS RESPIRATORY PROBLEMS IN ALL OF THOSE THINGS. BUT IF WE CAN'T LIVE TO SEE THE FUTURE BECAUSE WE'RE SHOT DOWN AND TAXED OUT OF EXISTENCE AT VARIOUS STAGES, WE NEED TO TAKE A CLOSE LOOK. THANK YOU.

MR. HERVEY: THANK YOU.

CLAUDIA LEON, PLEASE.

MS. LEON: MY NAME IS CLAUDIA LEON FROM HOLTVILLE. I'VE BEEN A RESIDENT HERE ALL MY LIFE IN THE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 798

The proposed project would not significantly impact public services or facilities (EIS/EIR Section 4.1.14). Therefore, there would be no need to mitigate impacts to the City's infrastructure and schools.

VALLEY. I'M A SECOND GRADE TEACHER, BUT I REPRESENT MYSELF, MY FAMILY. AS I HAVE MY KIDS DO THESE REPORTS, ONE OF MY KIDS THAT DID A REPORT -- I'VE BEEN HEARING ON THE RADIO IN THE BACKGROUND, I HAVEN'T REALLY HAD A CHANCE TO RESEARCH OR ANYTHING -- BUT ONE OF MY KIDS FILLED OUT MY NEWS REPORT AND IT TALKED ABOUT THE LANDFILL. AND IT WAS INTERESTING FOR ME FOR A SECOND GRADER TO TELL ME, "MS. LEON, DON'T THEY RECYCLE? DON'T THEY HAVE ANYTHING IMPLEMENTED IN THE OTHER COUNTY?"

I SAID, "I DON'T KNOW."

799 I HAVE A QUESTION, DO THEY? WHERE THE TRASH IS COMING FROM, DO THEY HAVE PROGRAMS THAT THEY STARTED TO IMPLEMENT, STARTED TO INVEST IN MINIMIZING TRASH? THINK ABOUT 20,000 TONS COMING TO OUR VALLEY. OKAY. WE'RE TALKING 20,000 TONS. THAT'S A LOT OF TRASH A DAY. NOW, HOW MUCH OF THAT 20,000 TONS CAN BE RECYCLED? THAT IS FROM A DIFFERENT PERSPECTIVE.

LIVING HERE IN THE COUNTY, I LIVE IN A NEW SUBDIVISION, AND I WASN'T TOO THRILLED WITH THE PRISON THAT CAME IN IT. IN THE NEW SUBDIVISION, OF ALL THE PEOPLE THAT LIVE THERE, MOST ARE FROM OUT OF THE STATE OF CALIFORNIA THAT HAVE COME DOWN HERE TO WORK IN THE PRISON. NONE OF THEM ARE FROM THE COUNTY. HOW IS IT THAT WE ARE TRADING IN EVERYTHING THAT THE VALLEY HAS FOR MONEY? IS MONEY EVERYTHING? IS IT? THIS VALLEY ISN'T WHAT IT USED TO BE.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 799

Please see response to Comment No. 369.

800 NOW, FROM HOLTVILLE BEING SUCH A SMALL TOWN, NOW WE KNOW WE'RE GETTING ALL KIND OF GANGS, DIFFERENT PEOPLE THAT JUST -- IN THE FIRST PLACE WEREN'T EVEN HERE. I THINK IT ATTRIBUTES TO THE PRISONS BEING BUILT. ALL KINDS OF OTHER THINGS ARE COMING TO THE VALLEY. WE'RE LIKE A BIG DUMPING SITE. HOW CAN WE NOT SPEAK FOR THE CHILDREN? IT'S A HUNDRED YEARS. I ASK SEE ALL MY FACES. WE KNOW THE IMPACT OF THIS. I WISH THEY COULD BE HERE TONIGHT. THEY ARE VOICELESS. THAT'S ALL THAT I HAVE TO SAY.

MR. HERVEY: THANK YOU.

JOSE LOPEZ, PLEASE.

MR. LOPEZ: LEROY.

MR. HERVEY: I'M SORRY. LEROY.

MR. LOPEZ: MY NAME IS LEROY LOPEZ FROM

801 HOLTVILLE. I'M REPRESENTING MYSELF. I LIVE HERE IN THE VALLEY. I GREW UP IN THE VALLEY. I WAS BORN IN THE VALLEY. I WENT TO DEANZA SCHOOL, WENT TO WILSON, EL CENTRO, GRADUATED FROM CENTRAL. I LOVE THE VALLEY. THERE IS NO JOBS. AND DUE TO AN OPPORTUNITY THROUGH GOLD FIELD, I CAME BACK TO THE VALLEY AFTER BEING GONE FOR TEN YEARS.

BOY, HAS THIS PLACE CHANGED. EVERYTHING IS DOWNTOWN. FEW STORES HERE, BRAWLEY, CALEXICO. I NEVER THOUGHT YOU WOULD BUY A HOUSE IN CALEXICO FOR 140,000. IT'S JUST UNBELIEVABLE. I'VE BEEN BACK GOING ON TEN YEARS NOW. I'VE BEEN ASSOCIATED WITH GOLD FIELDS AND

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No 800

The commentor's opinion that the prisons have brought "all kinds of gangs, different people that just -- in the first place weren't even here." and their concern for the children is noted.

Response to Comment No. 801

Comment noted.

MR. FILLER AND THE ARID PRODUCTIONS. I'VE NOTICED THROUGH GOLD FIELDS AND THROUGH THE MINING INDUSTRY THAT THEIR PRECAUTIONS ON SAFETY AND EVERYTHING ELSE THAT CAME UP, THEY DEALT WITH -- THEY DEALT WITH IT ON THE SPOT. THERE HASN'T BEEN A TIME THAT I CAN THINK OF WHEN SAFETY WASN'T THE UTMOST AS WELL AS ECOLOGICAL CONCERNS.

THEY BROUGHT UP THE FACT OF THE DESERT TORTOISE. I WORKED WITH B.L.M. ON THIS HUNDRED YEAR PROJECT THAT IS COMING OUT. I REALLY DON'T SEE WHERE ANYONE CAN FAIL TO SEE THAT THEY ARE NOT A VIABLE COMPANY. ALL THREE OF THEM. THEY WILL BE AROUND FOR A HUNDRED YEARS. I BELIEVE THEY WILL TAKE CARE OF THE VALLEY.

THE BORDER IS OPENING UP. INDUSTRY IS COMING IN. YOU HEAR ALL THE REPORTS OF THINGS THAT ARE HAPPENING IN TEXAS AND ARIZONA. IT'S NOT HAPPENING IN THE VALLEY. IT'S GOING TO. LANDFILL IS THE ONE THAT IS GOING TO BRING THE JOBS. CALEXICO, GROWING AS MUCH AS IT IS, WHERE ARE WE GOING TO DUMP THAT? I READ THE VALLEY HAS THE FIVE WORSE TRASH DUMPS IN CALIFORNIA.

NOW SOMETHING HAS TO BE DONE. IT CAN BE DONE BEHIND HOLTVILLE. I LIVE TEN MILES FROM THE DUMP. HOW ABOUT THOSE GUYS THAT LIVE IN HOLLYWOOD? THEY HAVE TO BE CONCERNED ABOUT WHAT IS HAPPENING OUT THAT WAY. THEY HAVE A DUMP OUT THERE. AS I LOOK AT THIS, I DON'T CONSIDER THIS A DUMP OFF. IT'S A LANDFILL. IT'S BEEN STUDIED, GONE THROUGH.

I WAS READING IN ONE OF THE REPORTS DONE IN RIVERSIDE, THINGS THEY HAVE DONE. THIS IS SOMETHING THAT IS COMING UP AND IS GOING TO GO. IT HAS TO. THE VALLEY IS GROWING. INDUSTRY IS COMING IN AND PEOPLE ARE TALKING ABOUT THE PRISONS. I KNOW QUITE A FEW PEOPLE THAT ARE INTO THE CORRECTIONS NOW BECAUSE OF PRISONS OR WORKING SINCE CENTINELA OPENED UP, TEN PEOPLE AT A MINIMUM THAT GRADUATED FROM THE ACADEMY AND ARE WORKING THERE NOW PLUS THE PEOPLE THAT ARE STAFF.

THE MONEY BROUGHT IN IS NOT MONEY THAT, SAY, LINES THEIR POCKETS. YOU CAN SAY, "I LINE MY POCKETS IN A JOB UP HERE." I'LL GIVE YOU AN EXAMPLE. THIS HAS UPGRADED MY WAY OF LIVING TO THE POINT WHERE I'M COMFORTABLE AND THE VALLEY NEEDS THE MONEY TO REDO THEIR DUMPS. THIS IS MONEY PEOPLE ARE GOING TO SPEND IN THE VALLEY. YOU ARE JUST GOING TO HAVE TO GET READY FOR THE FUTURE. THE FUTURE IS GOING TO COME TO THE VALLEY. IT'S SOMETHING THAT HAS TO BE TAKEN IN CARE OF, THOUGHT ABOUT IN ADVANCE BEFORE THAT TIME GETS HERE. THANK YOU.

MR. HERVEY: THANK YOU.

THAT CONCLUDES THE SLIPS THAT I HAVE FOR PEOPLE THAT WISH TO SPEAK. AT THIS POINT, I'LL CALL FOR ANYBODY WHO HAS NOT YET SPOKEN WHO WOULD NOW WISH TO GIVE AN ORAL STATEMENT.

MR. STRAIN: I WOULD LIKE TO SPEAK.

MR. HERVEY: STATE YOUR NAME, WHO YOU REPRESENT.

802

MR. STRAIN: JIM STRAIN, RESIDENT OF RURAL HOLTVILLE. I HAVE BEEN DOING PUBLIC RELATIONS WORK FOR ARID OPERATIONS. THESE ARE THE THINGS THAT HAVE BEEN BROUGHT UP TONIGHT THAT I THINK PEOPLE NEED TO KNOW. I'M REFERRING TO THE ENVIRONMENTAL DOCUMENT. FIRST OF ALL, IN TALKING ABOUT CHAPTER 1, PAGES 1 THROUGH 25, GOING INTO WHAT IS ACTUAL MUNICIPAL SOLID WASTE, THE DOCUMENT SAYS THIS WILL BE A CLASS III LANDFILL. MUNICIPAL SOLID WASTE.

THIS IS THE DEFINITION. IT ACTUALLY IS BASICALLY GARBAGE, TRASH, REFUSE, PAPER, MATERIALS PROVIDED SO THEY CANNOT CONTAIN WASTE, MUST BE MANAGED, THAT IS, HAZARDOUS WASTE, THE CONCENTRATION WHICH EXCEEDS THE STATE WATER QUALITY OBJECTIVE.

IT GOES FURTHER AND TALKS ABOUT THE FACT ON PAGE 1, VERY SMALL AMOUNT OF HOUSEHOLD HAZARDOUS MATERIALS THERE IS AVAILABLE IN THEIR LIVES, CONTINUING, THOSE THINGS WHICH INCLUDE SUCH THINGS AS FURNITURE POLISH, NAIL POLISH, ET CETERA, THOSE ARE CONSIDERED HAZARDOUS. THOSE WILL END UP IN THE LANDFILL. THEY ARE TOO SMALL TO SORT OUT IN MOST CASES.

THERE WILL BE A DRAINAGE MONITORING SYSTEM, A SYSTEM TO RECOVER ANY GASES THAT ARE GENERATED AND WATER THAT IS GENERATED SO IT COULD BE PROPERLY TREATED. THOSE ARE ALL ADDRESSED IN THE EIR ITSELF.

GOING A LITTLE BIT FURTHER, 2-9, COLUMN 1,

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 802

Comment noted.

PHOTOGRAPH 3. THERE IS SEVERAL METHODS FOR CONTROLLING HAZARDOUS WASTE FROM THE TIME OF THE PICKUP TO THE TIME IT GETS TO THE LOCATION OF THE LANDFILL. THERE IS SOMETHING LEFT OUT. PAGE 2-61, COLUMN 1, PARAGRAPH 2 TO 4 STATES THAT SCREENING PROCEDURES INCLUDING RANDOM CHECKING TRANSFER CHANGES AS PART OF THE LANDFILL STAGE NEED TO BE ADDED. THERE WILL BE RANDOM CHECKING, CHECKING AT THE LANDFILL ITSELF.

GOING FURTHER, IT TALKS ABOUT THE ACTUAL TIPPER PERSONNEL, THE PEOPLE ON THE GROUND -- THE CREWS WORKING WITH THE LANDFILLING. THEY WILL BE TRAINED TO RECOGNIZE WHAT IS THERE. SEVERAL THINGS CAN BE ADDRESSED. MAIN THING THEY ARE TALKING ABOUT -- NOT TALKING ABOUT IS HAZARDOUS WASTE. I WATCH THE TRAIN GO BY, AND HAVE SEEN THE ACTUAL HAZARDOUS LEVEL OF WASTE EVERY DAY -- MORE HAZARDOUS THINGS ON THE TRAIN EVERY DAY.

WHEN I REVIEWED THE EIS/EIR, IT DEFINITELY DESIGNATES WHAT WILL BE ALLOWED IN THE LANDFILL. IT WILL HAVE TO BE ALL PASS CALIFORNIA'S RECYCLING MEASURES THAT IT BE SEPARATED. AS I MENTIONED, THIS SHOULD BE RECOGNIZED IN THE FINAL DOCUMENT THAT COMES OUT. THERE ARE CERTAINLY LOTS OF BENEFITS TO THE COUNTY.

I HAVE TO TELL YOU WHEN I FIRST HEARD ABOUT THE LANDFILL I WAS OPPOSED TO IT. WHEN I FOUND IT COULD BE AN ADVANTAGE TO THE COUNTY, WE NEED TO LOOK AT IT SERIOUSLY. THANK YOU.

MR. HERVEY: THANK YOU. IS THERE ANYBODY ELSE THAT DID NOT SIGN UP TO SPEAK THAT WISHES TO GIVE AN ORAL STATEMENT AT THIS TIME?

(NO RESPONSE.)

MR. HERVEY: NO ONE. I WILL GIVE THREE MINUTES TO TWO INDIVIDUALS WHO WERE CUT OFF TO FINISH THEIR REMARKS IF THEY SO DESIRE.

EDIE HARMON, DO YOU WISH TO GIVE ADDITIONAL REMARKS AT THIS TIME?

MS. HARMON: YES.

MR. HERVEY: YOU HAVE THREE MINUTES.

MS. HARMON: GOING BACK TO INADEQUACIES OF THE

803 DOCUMENT. I THINK THAT THE EIS FAILED TO PROVIDE MEANINGFUL DISCUSSION OF ALL SITES AS DEFINED BY SEQUENCE AND IDENTIFY IN THE DRAFTING EIS DOCUMENTS ITSELF. IT FAILS TO EVEN INCLUDE A LIST OF THE OTHER PROPOSED MEGA LANDFILLS IN SOUTHERN CALIFORNIA WHICH ARE IN VARYING STAGES OF PERMITTING FOR APPROVAL. DOESN'T EVEN LIST CAMPO LANDFILL IN SAN DIEGO COUNTY.

THE RAIL HAUL PROJECT THAT RECEIVED CONSIDERABLE DISCUSSION AND HAS BEEN AN ISSUE WITH THE MEXICAN GOVERNMENT FAILS TO DISCUSS FURTHER ALTERNATIVES. THERE ARE AREAS DESCRIBED AS WHERE THESE LANDFILLS ARE SITED AS NATIONAL SACRIFICES.

804 THERE IS ALTERNATIVE TECHNOLOGY THAT IS BEING REVIEWED, AND TEST STUDIES. ONE OF THE STUDY SITES IS

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 803

Please see responses to Comment Nos. 164, 172, 314, and 433.

Response to Comment No. 804

Please see response to Comment No. 434.

SONOMA COUNTY, CALIFORNIA. THAT'S A WET LANDFILL IN WHICH THERE IS AN ADDITION OF MOISTURES TO SPEED UP LEACHING AND DECOMPOSITION OF THE MATERIALS IN THE LANDFILL AND TO STABILIZE THE TOXIC MATERIALS, REMOVE THOSE MATERIALS SO THAT THE LONG-TERM CONSEQUENCES AND POTENTIAL PROBLEMS OF THE LANDFILL ARE MINIMIZED.

805 I THINK THAT THE DISCUSSION OF ALTERNATIVES IS REALLY INADEQUATE. ALL THAT IS CONSIDERED IS MONEY FOR THE LANDFILL APPLICANT, NOT REALLY SERIOUS. THERE ARE NO ALTERNATIVE SITES. A NUMBER OF THEM HAVE GONE THROUGH CONSIDERABLE AMOUNT OF PERMITTING.

806 THE DISCUSSION OF CLOSURE AND POSTCLOSURE INSTALLATION MONITORING AND REMEDIATION ARE INADEQUATE. THEY DO NOT PROVIDE THE DETAILS THAT EXIST IN OTHER ENVIRONMENTAL DOCUMENTS FOR LANDFILLS THAT I HAVE REVIEWED. THE QUESTION IS, WHY IF OTHER PROJECTS REQUIRE DETAILED INFORMATION, WHY DOESN'T THIS DOCUMENT REQUIRE IT? WHY SHOULD STANDARDS FOR LANDFILL SITING -- POTENTIAL SITING OF THE LANDFILL IN IMPERIAL COUNTY BE LOWER THAN IN SAN DIEGO COUNTY OR OTHER COUNTIES? I THINK THAT IS SOMETHING THAT DESERVES AN ANSWER.

807 THE INFORMATION ON WILDLIFE, RAVEN CONTROL, THERE IS NO INFORMATION. REPEATEDLY THROUGHOUT THE DOCUMENT ON ISSUES LIKE RAVEN CONTROL AND OTHER ISSUES THE DRAFT EIS STATES PLANS WILL BE FORMED AT A SPECIFIC TIME IN THE FUTURE. THE PLANS SHOULD BE AVAILABLE FOR PEOPLE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 805

Please see response to Comment No. 164. A landfill siting study that considered the entire County of Imperial was conducted during the preparation of this EIS/EIR. One region emerged from that siting study as potentially containing a reasonable alternative to the proposed site. This alternative site is addressed as Alternative III in this EIS/EIR.

Response to Comment No. 806

Please see response to Comment No. 110.

Response to Comment No. 807

Please see response to Comment No. 339.

TO REVIEW AND --

MR. HERVEY: I'M GOING TO CALL TIME ON YOU. THANK YOU.

RANDY RISTER, DID YOU WISH TO MAKE ADDITIONAL COMMENTS?

UNIDENTIFIED SPEAKER: HE'S GONE.

MR. HERVEY: OKAY. AGAIN, I REMIND YOU THAT YOU CAN SUBMIT ADDITIONAL WRITTEN COMMENTS IN EDITION TO YOUR OWN COMMENTS. THE DEADLINE IS JULY 6TH. AND THOSE MUST BE PRESENTED TO THE LAND OFFICE HERE IN EL CENTRO. I THANK YOU ALL FOR ATTENDING, AND THE MEETING IS ADJOURNED.

(PROCEEDINGS CONCLUDED AT 8:44 P.M.)

* * * * *

STATE OF CALIFORNIA)
: SS.
COUNTY OF IMPERIAL)

I, DIANA L. MURPHY, CERTIFIED SHORTHAND REPORTER, HOLDING C.S.R. LICENSE NUMBER 8805, WITHIN AND FOR THE STATE OF CALIFORNIA, DO CERTIFY:

THAT THE ABOVE PROCEEDINGS WERE TAKEN DOWN BY ME IN STENOTYPE AT THE TIME AND PLACE HEREIN STATED AND WAS THEREAFTER REDUCED TO TYPEWRITING UNDER MY DIRECTION AND SUPERVISION, AND THE FOREGOING TRANSCRIPT, PAGES 1 THROUGH 56, INCLUSIVE, IS A FULL, TRUE AND CORRECT TRANSCRIPT OF MY SAID STENOTYPE NOTES.

THIS CERTIFICATION BECOMES VOID IF THE ORIGINAL BINDING ON THIS TRANSCRIPT IS BROKEN, REMOVED OR TAMPERED WITH IN ANY MANNER.

WITNESS MY SIGNATURE THIS 8th DAY OF June, 1994.

Diana L. Murphy
DIANA L. MURPHY, C.S.R. 8805

CERTIFIED COPY

MESQUITE REGIONAL LANDFILL
PUBLIC HEARING

RECEIVED
JUN 13 1994
RITTER/RIACH GROUP

MAY 26, 1994
7:00 O'CLOCK P.M.

DESERT EXPOCENTRE
FINE ARTS BUILDING
46-350 ARABIA STREET
INDIO, CALIFORNIA

REPORTED BY: DIANA L. MURPHY
C.S.R. NUMBER 8805

ATWOOD, JENNINGS & ASSOCIATES
CERTIFIED SHORTHAND REPORTERS
POST OFFICE BOX 1849
EL CENTRO, CALIFORNIA 92244-1849
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LAWYER'S NOTES

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* * * * *

MESQUITE REGIONAL LANDFILL HEARING

TAKEN AT DESERT EXPOCENTRE, FINE ARTS BUILDING, 46-350 ARABIA STREET, INDIO, CALIFORNIA 92201, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ON THURSDAY, MAY 26, 1994, COMMENCING AT 7:12 P.M., BEFORE DIANA L. MURPHY, A CERTIFIED SHORTHAND REPORTER WITHIN AND FOR THE STATE OF CALIFORNIA.

* * * * *

MR. HERVEY: LADIES AND GENTLEMEN, IF I COULD HAVE YOUR ATTENTION. PLEASE BE SEATED.

GOOD EVENING. THE PUBLIC HEARING WILL NOW COME TO ORDER. MY NAME IS JOHN HERVEY. I'M AN OUTDOOR RECREATION PLANNER IN THE BAKERSFIELD OFFICE IN THE BUREAU OF LAND MANAGEMENT. I'VE BEEN ASKED TO SERVE AS THE NEUTRAL PARTY TO CONDUCT THIS PUBLIC HEARING THIS.

THIS IS A PUBLIC HEARING FOR THE BUREAU OF LAND MANAGEMENT. I WOULD LIKE TO STRESS THAT THIS HEARING IS BEING HELD TO RECEIVE YOUR INFORMATION, VIEWS, COMMENTS AND SUGGESTIONS ON THE ADEQUACY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT AND REPORT THAT HAS BEEN PREPARED BY THE BUREAU OF LAND MANAGEMENT AND IMPERIAL COUNTY UNDER CONTRACT WITH THE BUTLER ROACH GROUP ON THE PROPOSED MESQUITE REGIONAL LANDFILL PROJECT.

THE DRAFT EIS/EIR WAS RELEASED FOR PUBLIC REVIEW

ON APRIL 8TH. A 90-DAY PUBLIC COMMENT PERIOD IS NOW UNDER WAY. OTHER THAN THE ORAL COMMENTS MADE HERE TONIGHT AND LAST NIGHT, ALL COMMENTS WILL BE ACCEPTED IN WRITING THROUGH JULY 6TH, 1994. THOSE COMMENTS SHOULD BE SUBMITTED TO THE B.L.M. OFFICE IN EL CENTRO AT 1661 SOUTH FOURTH STREET.

THE PURPOSE OF THESE HEARINGS IS TO ALLOW YOU THE OPPORTUNITY TO VERBALLY ADDRESS THE ADEQUACY OF OR CONCERNS THAT ARE NOT ADDRESSED IN THE DRAFT DOCUMENT. WE WILL NOT BE ANSWERING ANY QUESTIONS AT THIS HEARING. IF YOU HAVE A QUESTION REGARDING THE PROJECT, YOU CAN TALK TO THE APPROPRIATE PERSON AFTER THE PUBLIC HEARING OR VISIT THE B.L.M. OFFICE IN EL CENTRO. WE DO HAVE HERE TONIGHT BEN KOSKI, WHO IS THE AREA MANAGER OF THE BUREAU OF LAND MANAGEMENT IN EL CENTRO. BEN IS SITTING IN THE BACK.

BRIAN MOONEY IS CONSULTANT TO THE IMPERIAL COUNTY PLANNING DEPARTMENT. HE IS HERE FOR IMPERIAL COUNTY TONIGHT.

BOB FILLER OF ARID OPERATIONS IS ALSO HERE.

IF YOU PLAN TO MAKE AN ORAL STATEMENT THIS EVENING, BE SURE YOU FILLED OUT A REGISTRATION SLIP AND MARK THE "YES" BOX. IF YOU HAVE NOT ALREADY SIGNED IN, PLEASE DO SO FOR THE RECORD.

THE OFFICIAL REPORTER FOR TONIGHT'S HEARING IS DIANA MURPHY OF ATWOOD, JENNINGS & ASSOCIATES IN EL CENTRO. SHE WILL PREPARE A VERBATIM TRANSCRIPT OF

EVERYTHING THAT IS SAID AT THIS HEARING.

TO ENSURE A COMPLETE AND ACCURATE RECORD OF THE HEARING, WE ASK EVERYONE REMAIN AS QUIET AS POSSIBLE WHILE THE MEETING IS IN PROGRESS. I'LL CALL THE SPEAKERS IN THE APPROXIMATE ORDER THAT I RECEIVED THEM. TO ASSIST THE REPORTER, I ASK EACH SPEAKER TO STATE THEIR NAME, ADDRESS, AND WHO THEY ARE REPRESENTING. IF YOU ARE REPRESENTING YOURSELF, PLEASE SO STATE.

IN MAKING COMMENTS, IT'S MOST HELPFUL IF YOU CAN BE SPECIFIC AS TO WHAT YOU ARE ADDRESSING. IF YOU CAN, IDENTIFY THE SECTION OF THE DOCUMENT THAT YOU HAVE COMMENTS ON. THIS WILL HELP THE REVIEWER EVALUATE YOUR COMMENTS AND MAKE THE APPROPRIATE CHANGES, RATHER THAN HAVING TO HUNT AROUND AND PERHAPS MISS WHAT YOU WERE TRYING TO GET ACROSS. IF YOU CAN, GIVE YOUR REASONS, DATA, REFERENCE, BACKUP INFORMATION, ANYTHING TO HELP SUPPORT YOUR COMMENTS.

ALL YOUR COMMENTS ARE IMPORTANT AND WILL BE CONSIDERED IN THE FINAL DOCUMENT. THE MORE SPECIFIC YOU CAN BE, THE BETTER IT IS FOR GETTING THEM IN THE CORRECT PLACE. WRITTEN COMMENTS ARE CONSIDERED EQUALLY WITH YOUR ORAL COMMENTS. SO WHICHEVER METHOD IS MOST COMFORTABLE FOR YOU FOR PROVIDING COMMENTS.

WE HAVE RELATIVELY FEW SPEAKERS THAT SIGNED UP TONIGHT. I WILL NOT BE VERY STRINGENT ON THE TIME LIMITS. IF THERE ARE ANY QUESTIONS REGARDING THE HEARING,

I'LL TAKE THEM NOW AT THIS TIME.

UNIDENTIFIED SPEAKER: WHAT DID YOU SAY YOUR NAME WAS AND YOUR OFFICE AGAIN?

MR. HERVEY: JOHN HERVEY WITH THE --

UNIDENTIFIED SPEAKER: KIRBY?

MR. HERVEY: HERVEY, H-E-R-V, AS IN VICTORY, E-Y.

UNIDENTIFIED SPEAKER: BAKERSFIELD B.L.M.?

MR. HERVEY: THAT'S CORRECT.

FOR THOSE SPEAKING, THERE IS A MICROPHONE IF YOU WILL STEP UP THE MICROPHONE TO GIVE YOUR PRESENTATION.

JOEY ACUNA, JR.

MR. ACUNA: GOOD EVENING. MY NAME IS JOEY ACUNA. I'M REPRESENTING THE EAGLE MOUNTAIN OPPOSITION LANDFILL OPPOSITION COALITION. THERE IS A WHOLE LOT ABOUT THIS THING THAT I HAVE A LOT OF PROBLEMS WITH.

808 FIRST OF ALL, I'LL START WITH THE REAL EASY ONE. ENDANGERED SPECIES. YOU SAY THE DESERT TORTOISE WHICH IS KNOWN TO OCCUR IN THE DESERT AND IS LISTED BY THE STATE AND FEDERAL AGENCY -- YOU WRITE "NO" HERE IN THE ENDANGERED SPECIES LIST -- THAT'S ENOUGH IN MY OPINION.

809 IF THAT ONE IS THERE, YOU HAVE NO PROJECT.

THE OTHER THING THAT BOTHERS ME IS SOME OF THE RECOMMENDED IMPROVEMENTS ALONG THE PROPOSED RAIL SITE, MOST NOTABLY CONCERNING THE ONES OFF OF AVENUE -- STARTING WITH AVENUE 50 ALL THE WAY OUT THROUGH THE EASTERN END OF

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING, INDIO, CALIFORNIA, MAY 26, 1994.

Response to Comment No. 808

Impacts to the desert tortoise would be mitigated to insignificance as described in Section 4.1.3.3 of this EIS/EIR.

Response to Comment No. 809

Impacts from the increased train trips along the SP Main Line would be mitigated to insignificance as described in Section 4.1.6.3 of this EIS/EIR.

COACHELLA VALLEY. THERE IS REALLY NO OTHER SAFETY PRECAUTIONS OUT THERE. THERE IS NOTHING FOR EMERGENCY VEHICLES TO GET ACROSS. INCREASED TRAFFIC MEANS INCREASED PROBLEMS. YOU KNOW, THESE ARE RECOMMENDED IMPROVEMENTS. THESE ARE NOT IMPROVEMENTS THAT ARE GOING TO HAPPEN. I THINK THAT IS VERY IMPORTANT.

810 I'LL ALSO BE SUBMITTING A WRITTEN -- WHEN I GET FINISHED WITH THIS, IT'S A BIG BOOK. IT'S PRETTY BORING, TOO. I GENERALLY WANTED TO SAY, I OPPOSE THESE TYPES OF PROJECTS, THAT THESE REGIONAL LANDFILLS ARE REALLY NOT NECESSARY.

811 WE ARE HAVE TO START LOOKING AT THE SOURCE OF THIS STUFF. START SLOWING THIS DOWN. THESE THINGS ARE JUST OUTRAGEOUS. YOU PICK THE CERTAIN AREAS BECAUSE OF DEMOGRAPHICS, THE PEOPLE IN THE AREA. YOU PICK THE AREA WITH THE LEAST RESISTANCE BECAUSE OF -- YOU PREY ON ITEMS SUCH AS HIGH UNEMPLOYMENT. YOU GO IN AND THROW IN A COUPLE OF JOBS OUT THERE. YOU BASICALLY EXPLOIT THE AREA.

812 WE HAVE THAT PROBLEM WITH THE EAGLE MOUNTAIN SITE. I KNOW THAT'S ANOTHER TROUBLING SITE. SO FEW SITES, SO MUCH GARBAGE. TO ME THIS TARS THE STATE. IT'S BECOMING A NATIONAL PROBLEM. THESE THINGS ARE FLAWED IN GENERAL. THEY ARE FLAWED IN -- MORALLY FLAWED. I THINK THESE PROJECTS SHOULD NOT BE ALLOWED TO OCCUR.

AGAIN, I'LL BE SUBMITTING A WRITTEN STATEMENT

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 810

Comment noted.

Response to Comment No. 811

Please see response to Comment No. 668, second paragraph.

Response to Comment No. 812

Comment noted.

MORE DETAILED WITH ALL THE NICE SIGNIFICANT NUMBERS.

AGAIN, THANK YOU, SIR.

MR. HERVEY: THANK YOU.

RICHARD MARSH.

MR. MARSH: RICHARD MARSH, BOX 18, DESERT PLANNING COMMISSION. I DON'T HAVE ANY COMMENTS BECAUSE I HAVEN'T EVEN SEEN THE EIR. YOU SAID WE COULDN'T ASK ANY QUESTIONS, BUT MAYBE IF I ASK ONE, YOU COULD SEE IF IT'S ALL RIGHT.

813 I DON'T UNDERSTAND WHY THE B.L.M. IS CONDUCTING THIS HEARING INSTEAD OF THE PLANNING COMMISSION OR SUPERVISORS. HOW YOU ARE INVOLVED IN THIS IF EIR IS BEHIND -- A PRIVATE AGENCY IS BEHIND THE PREPARATION?

YOU ARE OUT OF BAKERSFIELD INSTEAD OF PALM SPRINGS. I DON'T UNDERSTAND THE GENERAL SETUP OF WHAT YOU ARE DOING. I DON'T KNOW IF IT'S FAIR TO GIVE US THAT INFORMATION. I CERTAINLY WOULD BE INTERESTED.

MR. HERVEY: YOU CAN CERTAINLY TALK TO MR. KOSKI AFTER THE MEETING -- OR UNLESS HE WANTS TO ADDRESS THE ISSUE NOW?

MR. KOSKI: AFTER.

MR. HERVEY: THE REASON I'M HERE, I'M FROM OUT OF THE AREA, HAVING NOTHING TO DO WITH THE PROJECT. AFTER TONIGHT'S MEETING I WILL HAVE NOTHING MORE TO DO WITH THE PROJECT. I'M A NEUTRAL PARTY TO CONDUCT THE PUBLIC HEARING HERE. THERE IS NO BIAS IN THE CONDUCT OF THE

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 813

The BLM El Centro Resource Area Office is responsible for the preparation of this EIS. The Applicant has requested that 1,750 acres of federal land, managed by the El Centro Resource Area Office, be exchanged for private lands to allow for the construction and operation of the proposed project. In order to conduct the land exchange, the BLM would have to amend the CDCA Plan to change the boundary of the Singer Geoglyphs ACEC to exclude that portion of the ACEC located north of SR 78. The Applicant has also requested the El Centro Resource Area Office to grant a Right-Of-Way for a four- to five-mile rail spur to connect the landfill site with the SP Main Line and a Right-Of-Way for a potential gas pipeline from the proposed site to Niland. This EIS is required as part of the decision making process involved with these requested BLM actions.

MEETING.

JOHN JOHNSON.

MR. JOHNSON: I'M JOHN JOHNSON WITH THE COUNTY OF RIVERSIDE AT 4080 LEMON STREET, RIVERSIDE, 92501, 12TH FLOOR.

THE BOARD OF SUPERVISORS DIDN'T TAKE A POSITION, BUT THEY DID SUBMIT A WRITTEN STATEMENT AND THEY WANTED IT SUPPORTED WITH SOME ORAL TESTIMONY, SO THAT'S THE REASON YOU ARE GETTING THE WRITTEN STATEMENT AND THE ORAL TESTIMONY AT THE SAME TIME.

814 THE BOARD GENERALLY WANTS THIS PROJECT TO BE CONDITIONED TO THE SAME STANDARDS THAT EAGLE MOUNTAIN HAS BEEN CONDITIONED. THEY FEEL THAT THIS PROJECT, EAGLE MOUNTAIN, AND -- EAGLE MOUNTAIN AND THIS PROJECT ARE SO SIMILAR THAT THEY ARE NEARLY THE SAME. THEY ACCEPT THE SAME AMOUNTS OF REFUSE. THEY USE THE SAME AMOUNT OF M.S.W. DELIVERY. THEY USE THE SAME METHOD FOR DELIVERY, ET CETERA.

SO THE BOARD FEELS THAT THE STANDARDS PLACED ON EAGLE MOUNTAIN SHOULD BE PLACED ON THIS PROJECT. THE INTEREST SHOULD BE EQUAL. THEY ALSO FEEL THAT ONE THING

815 THAT WAS CREATED FOR EAGLE MOUNTAIN OUT OF THE INVESTMENT AGREEMENT SHOULD BE CREATED FOR THIS PROJECT AND THAT'S THE ENVIRONMENTAL HAZARDS FUND.

BECAUSE ONE OF THE THINGS SUCH AS THE GENTLEMAN SPOKE ABOUT HERE, THERE WERE PEOPLE IN RIVERSIDE COUNTY

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 814

Please see response to Comment No. 73.

Response to Comment No. 815

Please see response to Comment No. 66.

WHO APPEARED AND SPOKE VEHEMENTLY TO HAVE THE EAGLE MOUNTAIN PROJECT WEIGHTED AS HEAVY AS POSSIBLE TOWARD ENVIRONMENTAL REMEDIATION SHOULD SOMETHING SUCH AS A MISHAP OR EMERGENCIES, ET CETERA, OCCUR. ESPECIALLY IF SOMETHING HAPPENS THAT NEEDS REMEDIAL OR CONTINUED REMEDIATION EXPENSE, THE COUNTY OF RIVERSIDE, OF COURSE, IS NOT INTERESTED IN PAYING FOR THE COUNTY OF IMPERIAL'S EXPENSES, NOR IS IT ABLE TO.

SO, THEREFORE, IT'S IMPERATIVE FOR OUR COUNTY TO SEE THE FINANCIAL SUPPORT FOR ANYTHING THAT MAY GO WRONG WITHIN RIVERSIDE COUNTY TO BE TAKEN CARE OF TO THIS ENVIRONMENTAL REMEDIATION FUND. LONGEST REACH OF THE RAIL ROUTE IS RIVERSIDE COUNTY. IT'S ABOUT 85 MILES OF A 280-MILE ROUTE. SO IT'S IMPORTANT TO US THAT WE SEE THIS BUILT INTO THE PROJECT BECAUSE IF SOMETHING IS LIKELY TO HAPPEN, IT'S LIKELY TO HAPPEN WHERE THE MOST CROSSINGS OCCUR, AND WHERE THE TRAIN SPENDS MOST OF ITS TIME, WHICH IS RIVERSIDE COUNTY.

OTHER THAN THAT, THE COUNTY HAS NO POSITION FOR OR AGAINST THE PROJECT. IT'S TOTALLY NEUTRAL. BUT I BELIEVE THOSE FEW THINGS AND THE STANDARDS SHOULD BE ADHERED TO AS WERE PLACED ON EAGLE MOUNTAIN. THANK YOU.

MR. HERVEY: THANK YOU. YOUR LETTER HAS BEEN NOTED AND WILL BE PART OF THE RECORD.

DAN ROMAN.

MR. ROMAN: GOOD EVENING. MY NAME IS DAN ROMAN,

THE CHAIRMAN OF THE EAGLE MOUNTAIN OPPOSITION COALITION, LIFETIME RESIDENT OF THE CITY OF INDIO.

816 I AM OPPOSED TO THE CONCEPT OF REGIONAL LAND FILLING, WHAT WE REFER TO AS MEGA DUMPS. I BELIEVE IT'S UNNECESSARY. YET WE'RE BEING ASKED TO CONSIDER A NUMBER OF THESE PROJECTS IN OUR DESERT REGION. I WILL REITERATE WHAT MR. ACUNA SAID, THESE PROJECTS ARE UNNECESSARY.

THEY DO NOT ADDRESS THE PROBLEM OF GARBAGE

817 REDUCTION AT ITS SOURCE. THEY, IN MY OPINION, WILL CREATE A SITUATION IN WHICH THE IRRESPONSIBILITY OF MUNICIPAL SOLID WASTE BY THE URBAN AREAS WILL BE ALLOWED -- OR UNABLE TO CONTINUE BECAUSE THESE REGIONAL DUMPS PROVIDE A CONVENIENT MECHANISM, SO TO SPEAK.

THE SENSE OF URGENCY TO MOVE QUICKLY TOWARDS ALTERNATIVE TECHNOLOGIES THAT MOVE US AWAY FROM WHAT I REFER TO AS CAVEMAN TECHNOLOGY, WHICH IS THROWING GARBAGE INTO A HOLE IN THE GROUND, IS NOT GOING TO BE UTILIZED IN MY BELIEF IF THIS IS AVAILABLE TO THE URBAN AREAS. THEY DON'T HAVE THE SENSITIVITY TOWARDS THIS DESERT THAT RESIDENTS OF THIS DESERT HAVE.

I'M ALSO VERY CONCERNED ABOUT THE BUREAU OF LAND MANAGEMENT'S ROLE IN REGIONAL LAND FILLING. WE ARE CURRENTLY AND HAVE BEEN OPPOSING FOR SOME TIME THE EAGLE MOUNTAIN LANDFILL. RIGHT NOW THERE IS A FEDERAL PANEL OF JUDGES CONCERNING AN APPEAL IN THE LAND EXCHANGE WHICH WE SUBMITTED.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 816

Comment noted.

Response to Comment No. 817

Please see responses to Comment Nos. 181 and 369.

WE FEEL THAT B.L.M. IN A SENSE SETTLED THAT LAND EXCHANGE THROUGH THE PROCESS WITH A GREAT DEAL OF INEQUITIES, PROBLEM IMPROPRIETIES, VIOLATIONS OF FEDERAL CODE. AND THE FEDERAL PANEL OF JUDGES AT THE INTERNAL BUREAU OF LAND APPEALS CONCURRED WE DO HAVE A STRONG CASE TO MAKE.

AS I SPEAK, THE MINE RECLAMATION, WHICH IS OPPOSING THE EAGLE MOUNTAIN GARBAGE DUMP, DOES NOT OWN THE LAND IT HOPES TO DUMP ON. AND YET ANOTHER AGENCY, REGULATORY AGENCY, JUST ABOUT A WEEK AND A HALF AGO HAS GRANTED DISCHARGE PERMITS -- NOT GRANTED PERMITS, APPROVED THE APPLICATION OF THE COMPANY, DESPITE THE FACT THERE ARE LAWSUITS PENDING ON THIS CASE, AND THIS COMPANY DOES NOT OWN THE LAND.

818 WE FEEL LIKE THE REGULATORY PROCESS, BUREAUCRATIC PROCESS, BUREAU OF LAND MANAGEMENT PROCESS, IS OUT OF CONTROL. WE NEED A RESPONSIBLE PUBLIC PROCESS TO MAKE CERTAIN THAT THE PUBLIC IS PROVIDED ADEQUATE AMPLE DUE PROCESS.

819 ONE PUBLIC HEARING, IN MY MIND, ON A PROJECT OF THIS MAGNITUDE, THIS SCOPE, IS SIMPLY NOT ENOUGH. WE DON'T HAVE THE TIME AND RESOURCES AVAILABLE TO US TO BE ABLE TO ADEQUATELY INFORM THE PUBLIC TO BE ABLE TO COME OUT TO ONE PUBLIC HEARING WHICH IS BEING CONDUCTED BY THIS AGENCY. WE NEED MORE.

I WOULD REQUEST THIS EVENING THAT THE B.L.M.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 818

Comment noted.

Response to Comment No. 819

There have been four public meetings/hearings conducted so far on the proposed Mesquite Regional Landfill Project. On May 27 and 28, 1992 Scoping Meetings were held in the Cities of El Centro and Indio. On May 25 and 26, 1994, Public Hearings on the Draft EIS/EIR were held at these same locations. Additional public hearings will be held before the various permitting agencies, including the County of Imperial Planning Commission and Board of Supervisors, before a final decision on this project is made. This Final EIS/EIR will be circulated for an additional 30-day public review period to allow additional comments to be submitted by the public for consideration by BLM is preparing a Record of Decision on this project. The public is encouraged to participate in all aspects of this public decision making process. Dates of future public hearings can be obtained from the County of Imperial, Building and Planning Department at (619) 339-4236.

GRANT MORE HEARINGS ON THIS CRITICAL ISSUE SO THAT THE PUBLIC CAN BECOME INVOLVED AND FIND OUT WHAT THIS IS ALL ABOUT, FIND OUT HOW IT MAY AFFECT THEIR COMMUNITIES.

ONE OF THE MAJOR CONCERNS THAT WE HAVE IN THE DESERT IS, OF COURSE, WE HAVE THE SOUTHERN PACIFIC RAILROAD LINE RUNNING THROUGH THE HEART OF THE COACHELLA VALLEY. THESE ARE DIESEL TRAINS. THE POLLUTION FROM THEM IS TREMENDOUS. IT IS -- THERE IS A POTENTIAL FOR GREAT TRAIN TRAFFIC INCREASE AS A RESULT OF THE MINE RECLAMATION PROJECT.

WE ARE BEING ASKED TO CONSIDER ANOTHER PROJECT. IT LOOKS TO ME TO BE POTENTIALLY 22, 24 ADDITIONAL TRAINS ON THAT S.P. LINE PER DAY. THERE ARE INDICATIONS IN THE ENVIRONMENTAL IMPACT REPORT ON THE MINE RECLAMATION PROJECT THAT ASKS US TO BELIEVE THAT THE TRAIN TRAFFIC RESULTS OF THAT ALONE COULD INCREASE BY 50 PERCENT. THAT'S UNACCEPTABLE TO ASK.

820

WE JUST DON'T -- SINCE WE HAVE STUDIED THE SOLID WASTE SITUATION, WE ARE BEING ASKED TO BASICALLY TAKE THE BURDEN OFF OF THE URBAN AREAS AND SUFFER ALL OF THE ENVIRONMENTAL IMPACTS. OBVIOUSLY DIRECTLY THESE ARE OUR IMPACTS. WE'RE VERY CONCERNED AND TYPICALLY THE APPLICANTS WILL SAY THAT THEY WILL STUDY ALTERNATIVE FIELDS.

YET THE REALITY IS THAT THE PROJECT AS DESIGNED WILL START AS A -- WOULD START AS A RAIL HAUL

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 820

The cumulative increase in train trips that would occur on the SP Main Line if the proposed Mesquite Regional Landfill, Eagle Mountain Regional Landfill and Chocolate Mountain Regional Landfill are all approved and operated at full capacity were found not to be significant in Section 4.7.3.3 of this EIS/EIR.

DIESEL-FUELED PROJECT. THE EMISSIONS WOULD BE SUBSTANTIAL. I THINK 27,000 POUNDS OF POLLUTANTS PER DAY IN THE COACHELLA VALLEY ADDED TO THIS AIR BASIN ARE PROJECTED ON EAGLE MOUNTAIN.

I HAVE NOT HAD AN OPPORTUNITY TO STUDY THIS EIR. QUITE FRANKLY, WE FEEL LIKE WE HAVE BEEN UNDER SIEGE, PARTLY BECAUSE NOT ONLY THE RESULTS OF THE WASTE INDUSTRY, ALSO THE PRACTICES OF THE DEPARTMENT OF THE INTERIOR. HEMLOCK IS CURRENTLY ASSISTING THE TORRES MARTINEZ INDIANS IN THEIR FIGHT TO GET MEDIATION FOR A 500,000 TON PILE OF SLUDGE THAT HAS BUILT UP OVER THERE FOR THE PAST FIVE YEARS. IT'S POLLUTING OUR GROUNDWATER.

THIS IS A SITUATION IN WHICH THE DEPARTMENT OF THE INTERIOR IS INDEED INVOLVED BY THE VIRTUE OF THE BUREAU OF INDIAN AFFAIRS. THE MAYOR OF PALM DESERT, ROY WILSON, CALLED THE B.I.A.'S ROLE IN THIS TOTALLY IRRESPONSIBLE. IT'S OUR BELIEF THAT IS HOW THE B.L.M. HAS ACTED IN REGARDS TO THESE REGIONAL LANDFILL PROJECTS.

821

WE NEED TO STUDY THESE PROJECTS VERY CAREFULLY. WE NEED TO SCRUTINIZE THESE PROJECTS VERY CLOSELY. ARTICLES WHICH I PRESENTED TO THE DISTRICT MANAGER OF THE BUREAU OF LAND MANAGEMENT IN RIVERSIDE SEVERAL MONTHS AGO PRIOR TO HIS SIGNING OFF ON THE LAND EXCHANGE INDICATE THAT WASTE WAS GOING TO LANDFILLS IN THE URBAN AREAS IN L.A. COUNTY, ORANGE COUNTY IS DOWN. THERE IS NO IMMINENT

822

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 821

Comment noted.

Response to Comment No. 822

MSW volumes have decreased recently because of the successful implementation of AB 939 and the economic downturn that has occurred. This downturn is projected to be a temporary condition and it is expected MSW volumes will begin to increase again in the near future.

CRISIS.

I DON'T KNOW WHO MANUFACTURED THIS CRISIS. WE ARE BEING ASKED TO BELIEVE THAT IN TERMS OF THE SOLID WASTE, THE SKY IS FALLING. NO. WE NEED TO STOP. WE NEED TO STEP BACK. WE NEED TO LOOK AT THESE PROJECTS, STUDY THEM VERY CLOSELY. WE NEED TO LOOK AT THE ALTERNATIVES.

823 WE NEED TO AVOID LAND FILLING. WE KNOW WHAT LAND FILLING DOES. IT POLLUTES GROUNDWATER.

TO PROPOSE A PROJECT ON A MONUMENTALLY LARGER SCALE THAN THE LANDFILLS OPERATING TODAY IN SOUTHERN CALIFORNIA IS IRRESPONSIBLE IN MY MIND. IT'S GOING TO CREATE WATER POLLUTION PROBLEMS AT SOME POINT IN TIME, MUCH LARGER THAN THE ONES THAT EXIST NOW. ALSO, IT'S GOING TO ENABLE THE WASTE INDUSTRY, MUNICIPALITIES TO TURN THEIR BACKS ON PROBLEMS THAT EXIST AT CURRENT LANDFILLS. THAT WORRIES ME.

I DON'T SEE SIMPLY CLOSING DOWN THE LANDFILLS IS GOING TO ADDRESS THE CONTAMINATION THAT MAY ALREADY BE HAPPENING THERE. WE NEED TO GO BACK INTO THESE LANDFILLS AND ADDRESS THE ISSUE THERE. THEY ARE SIGNALING US TO ACT MORE RESPONSIBLY IN THE WAY WE HANDLE GARBAGE.

824 ONE SPECIFIC THING I'M AWARE OF IN THE ENVIRONMENTAL IMPACT REPORT IS THAT THE APPLICANT SAYS THE MATERIAL RECOVERY FACILITIES HAVE BEEN LOCATED OR SITED, THEREFORE THEY CAN'T BE ADDRESSED AS PART OF THE EASEMENT EIR. THIS PROBLEM CANNOT EXIST WITHOUT THE MATERIAL

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 823

Please see response to Comment No. 181. Section 4.1.2 of this EIS/EIR found that with implementation of the mitigation measures described in Section 4.1.2.3 of this EIS/EIR, ground water impacts would not be significant.

Response to Comment No. 824

This EIS/EIR identifies that there is currently 20,000 tons per day of MRF/transfer station capacity in Los Angeles and that the location of future MRFs/transfer stations cannot be predicted at this time. Please see response to Comment No. 15.

RECOVERY FACILITY. THEREFORE, THEY NEED -- THE IMPACTS NEED TO BE ANALYZED. OTHERWISE, THE PUBLIC HAS NO WAY OF KNOWING JUST WHAT IT IS BEING ASKED TO ACCEPT IN TERMS OF THE ENVIRONMENTAL DAMAGE.

SO, AS I SAY, I WOULD LIKE TO SEE MORE PUBLIC HEARINGS. I THINK THE PUBLIC NEEDS TO BECOME MORE INFORMED ABOUT THESE ISSUES. WE'RE BEING ASKED TO ACCEPT THE REST OF CALIFORNIA -- PERHAPS THE NATION'S WASTE IN THE DESERT. WE, AS RESIDENTS, RAISING CHILDREN IN THIS DESERT, GRANDCHILDREN IN THIS DESERT, WE NEED TO KNOW WHAT KIND OF QUALITY OF LIFE IMPACTS WE'RE BEING ASKED TO ACCEPT BECAUSE OF THESE PROJECTS. LET'S SLOW DOWN. LET'S LOOK AT THIS. LET'S LET THE PUBLIC PROCESS OPERATE PROPERLY. THANK YOU.

MR. HERVEY: THANK YOU.

THAT'S THE END OF THE SLIPS THAT I HAVE FOR PEOPLE THAT SIGNED UP TO SPEAK. AT THIS TIME, IS THERE ANYONE WHO HAS NOT ALREADY SPOKEN WHO WISHES TO MAKE AN ORAL STATEMENT?

MR. ROMAN: I'D LIKE TO MAKE A BRIEF STATEMENT.

MR. HERVEY: STATE YOUR NAME, ADDRESS, WHO YOU ARE REPRESENTING FOR THE RECORD, PLEASE.

MR. ROMAN: MY NAME IS ROBERT ROMAN. I'M DAN ROMAN'S BROTHER, WITH THE EAGLE MOUNTAIN OPPOSITION COALITION. 44-446 BISKRA, B-I-S-K-R-A, INDIO. AND I WOULD LIKE TO REITERATE HIS CALL FOR MORE HEARINGS,

825

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 825

Comment noted.

WELL-PUBLICIZED HEARINGS BEFORE THE END, AND, OF COURSE, BEYOND THE END OF THIS PARTICULAR COMMENT PERIOD.

I WON'T STAND HERE AND HAMMER ON THE THINGS HE HIT UPON. I WOULD LIKE TO REITERATE THAT I THINK THE B.L.M., DEPARTMENT OF INTERIOR HAS COMPLICITY IN MOVING AND NUDGING THESE PROJECTS ALONG HAND IN HAND AS LAP DOGS FOR THE WASTE INDUSTRY, AND WE'RE NOT GOING TO TAKE IT HERE IN THE COACHELLA VALLEY. 826

WE DON'T WANT THE TRASH TRAINS COMING THROUGH OUR DESERT. MY FAMILY HAS BEEN HERE FOR 60 YEARS. MY GRANDFATHER, IF HE WERE ALIVE TODAY, WOULD BE SICKENED IF HE SAW WHAT THE PROCESS WAS DOING, WHAT IT WAS DOING TO THIS DESERT HE HELPED FOUND, ESTABLISH. 827

TO SEE ANOTHER PROJECT COMING DOWN THE LINE BESIEGED BY PROJECTS FROM OUTLYING METROPOLITAN COMMUNITIES IS SICKENING TO ME. AND I JUST WOULD JUST LIKE TO STATE THAT I READ SOMETHING BY FREDERICK DOUGLASS ONCE. SOMEBODY ASKED HIM, "WHAT DO I DO WHEN I GET INVOLVED?"

HE SAID, "AGITATE, AGITATE, AGITATE."

WE HAVE DONE THAT. WE SEE HOW THE PROCESS WORKS, HOW IT WORKS AGAINST THE PUBLIC. IT DOES NOT WORK FOR THE PROBLEM. WE ARE CONCERNED, THE OUTSIDERS. WE ARE CONSIDERED THE RADICALS WHEN THE PROJECTS ARE THE MOST RADICAL PROPOSALS EVER TO HANDLE METROPOLITAN SOLID WASTE.

RESPONSE TO INDIVIDUAL COMMENTS AT THE MESQUITE REGIONAL LANDFILL PUBLIC HEARING (CONTINUED)

Response to Comment No. 826

Comment noted.

Response to Comment No. 827

Comment noted.

I LEARNED ONE THING SINCE I HAVE BEEN INVOLVED IN FIGHTING EAGLE MOUNTAIN, IT'S NOT AGITATE, AGITATE, AGITATE. IT'S LITIGATE, LITIGATE, LITIGATE. I WANT WESTERN WASTE TO KNOW AND THE IMPERIAL COUNTY BOARD OF OFFICERS TO KNOW THAT THIS WILL END UP IN THE COURTS. YOU ARE IN FOR A FIGHT.

THANK YOU.

MR. HERVEY: THANK YOU.

IS THERE ANYONE ELSE WHO WOULD LIKE TO MAKE AN ORAL STATEMENT?

(NO RESPONSE.)

MR. HERVEY: THANK YOU FOR ATTENDING TONIGHT'S HEARING, AND YOUR TESTIMONY. AGAIN, WRITTEN COMMENTS THROUGH JULY 6TH, 1994 WILL BECOME PART OF THE RECORD. DELIVER THEM TO THE BUREAU OF LAND MANAGEMENT OFFICE IN EL CENTRO.

THANK YOU FOR COMING. THE MEETING IS ADJOURNED.

(PROCEEDINGS CONCLUDED AT 7:39 P.M.)

* * * * *

STATE OF CALIFORNIA)

: SS.

COUNTY OF RIVERSIDE)

I, DIANA L. MURPHY, CERTIFIED SHORTHAND REPORTER, HOLDING C.S.R. LICENSE NUMBER 8805, WITHIN AND FOR THE STATE OF CALIFORNIA, DO CERTIFY:

THAT THE ABOVE PROCEEDINGS WERE TAKEN DOWN BY ME IN STENOTYPE AT THE TIME AND PLACE HEREIN STATED AND WAS THEREAFTER REDUCED TO TYPEWRITING UNDER MY DIRECTION AND SUPERVISION, AND THE FOREGOING TRANSCRIPT, PAGES 1 THROUGH 17, INCLUSIVE, IS A FULL, TRUE AND CORRECT TRANSCRIPT OF MY SAID STENOTYPE NOTES.

THIS CERTIFICATION BECOMES VOID IF THE ORIGINAL BINDING ON THIS TRANSCRIPT IS BROKEN, REMOVED OR TAMPERED WITH IN ANY MANNER.

WITNESS MY SIGNATURE THIS 8th DAY OF June, 1994.

Diana L. Murphy
DIANA L. MURPHY, C.S.R. 8805

ATTACHMENT

to the

SIERRA CLUB, SAN DIEGO CHAPTER

COMMENT LETTER

on the proposed

MESQUITE REGIONAL LANDFILL

DRAFT EIS/EIR

JUNE 1995

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Los Angeles Times

Saturday, February 4, 1989

Waste Firm Charged in Plot Is Fined $1 Million

By EDWIN CHEN, *Times Staff Writer*

A large Carson-based trash-hauling firm, entering a no-contest plea, agreed Friday to pay $1 million in fines to settle two criminal cases involving antitrust conspiracy charges and the illegal disposal of toxic wastes.

The fines were described as "one of the largest corporate criminal fines in California history" by Los Angeles County Dist. Atty. Ira Reiner, whose office filed the cases.

In addition, Western Waste Industry Inc.'s sales manager, Ishkan (Ara) Gordian, 44, will serve 45 days in jail in the antitrust case under terms of the plea bargain. This represents the first such penalty to be imposed under the felony provisions of the Cartwright Act, the state's basic antitrust law, according to Reiner.

Formal Sentencing

The no-contest pleas were entered Friday afternoon before Los Angeles Municipal Judge Larry P. Fidler. Formal sentencing is set for March 17 before Superior Court Judge Malcolm Mackey.

The fines Western Waste agreed to pay include $900,000 in the antitrust case and $100,000 in the hazardous waste case, in which the firm allegedly hid hazardous wastes in household trash, dumping them illegally in three county landfills. The money is to go to the county treasury.

Still facing criminal charges in the illegal dumping case is Western Waste's vice president and manager, Hacob (Jack) Shirvanian. His trial is set for April 24 before Mackey.

Please see WASTE, Page 4

WASTE: Firm Fined $1 Million, Manager Jailed

Continued from Page 1

The antitrust case against Western Waste, filed in June, 1987, alleged that the firm, with annual receipts of about $70 million, was one of three corporations and several individuals involved in a plot to eliminate competition and to artificially inflate prices in Southern California's multimillion-dollar commercial trash-hauling industry.

The other corporate defendants are Angelus Hudson Inc. of Los Angeles and Waste Management of California Inc., the local subsidiary of an Illinois-based firm that reported revenues of more than $1.5 billion in 1986, making it the nation's largest solid waste treatment and disposal firm.

A preliminary hearing for the remaining defendants in the antitrust cases is scheduled to begin in Los Angeles Municipal Court on Monday. The individual defendants are Wiley A. Scott, 32, and Clifford R. Chamblee, 63, both Waste Management officials, and John Marderosian, 54, an official of System Disposal Service Inc. at the time of the alleged conspiracy.

Exhibit A

LOS ANGELES TIMES
MAY 19. 1989

Hazardous Waste Case Brings Fine of $125,000

By JEFFREY L. RABIN,
Times Staff Writer

An executive of Western Waste Industries, who served on the state Waste Management Board for 10 years, has been fined $125,000 after pleading no contest to charges of illegally disposing of hazardous waste mixed with household garbage.

The fine imposed this week against Hiroshi (Jake) Shirvanian is the largest ever assessed against an individual for an environmental crime in Los Angeles County, according to the district attorney's office.

Shirvanian, vice president and manager of Western Waste, was convicted of three misdemeanor counts of illegal disposal of heavy metals and dry-cleaning wastes that were dumped at landfills in the San Gabriel Valley and Glendale.

Felony Charges

Western Waste also entered a no-contest plea Monday in Los Angeles Superior Court on three felony counts of illegally mixing hazardous waste with garbage at its trash transfer station in Carson between January, 1985, and July, 1988.

Judge Alexander Williams III fined Western Waste $100,000 as part of a settlement agreement reached last February.

Deputy Dist. Atty. William Carter said Shirvanian and Western Waste's conduct was "very serious" because it was premeditated and involved "intentional dumping on a frequent basis."

Carter said "a no-contest plea is the same as a guilty plea in the eyes of the court. It still constitutes a conviction."

But Shirvanian said in an interview that he was not admitting guilt. He denied that any mixing of hazardous waste and household garbage took place. "You don't do things like that unless you are a mental case," he said.

'A Made-Up Case'

Shirvanian, 68, of Glendale, said he was "saving the grief and the money" of a prolonged trial. "The whole case is just a made-up case. . . . The whole thing is depressing," he said. "I just want to forget about it."

From May, 1973, to May, 1983, Shirvanian served on the state Waste Management Board as an advocate for waste companies in Southern California. He was first appointed by then-Gov. Ronald Reagan and was reappointed by Gov. Edmund G. Brown Jr., said Chris Peck, the board's deputy director.

Carter said former Western Waste employees told investigators that excess haz-

Please see DUMPING, Page 4

DUMPING

Continued from Page 3

ardous waste was dumped at the transfer station in Carson whenever trucks headed for licensed hazardous waste dumps in Santa Barbara and Kings County exceeded legal weight limits.

Carter said Western Waste workers shoveled the nickel and chromium waste out of the trucks to reduce the weight to legal limits. The mud-like material was then mixed with household garbage and hauled to the local landfills.

The combined waste was dumped at the Puente Hills landfill near Hacienda Heights, the BKK landfill in West Covina and the Scholl Canyon landfill near Glendale. None of the landfills are licensed to handle such hazardous waste and none of the illegal waste has been recovered, Carter said.

The material included chromium and nickel from a wire manufacturer in Santa Fe Springs and soil and garbage contaminated with perchloroethylene, a dry-cleaning chemical from Roehl Corp. in Wilmington. Charges against Roehl and a company executive are still pending.

Last February, Western Waste agreed to plead no contest to the waste charges and pay a $100,000 fine as part of a settlement of a criminal antitrust case. The company also agreed to pay a $900,000 fine for engaging in a plot to eliminate competition and to artificially inflate commercial trash hauling prices.

Dist. Atty. Ira Reiner described the $1 million in fines in the antitrust and illegal disposal cases as "one of the largest corporate criminal fines in California history."

A Western Waste sales manager, Ishkan (Ara) Gordian, was sentenced to serve 45 days in jail under terms of a plea bargain. The penalty was the first imposed under felony provisions of the Cartwright Act, the state's basic antitrust law.

The antitrust case alleged that Western Waste engaged in a concerted sales effort or "blitz" in early 1985 to take commercial customers from competitors."

Exhibit B

Reprint of:
RACHEL'S HAZARDOUS WASTE NEWS #71

Providing news and resources to the Movement for Environmental Justice -- April 4, 1988

DECADE-OLD STUDY REVEALED THE POLLUTING EFFECTS OF LANDFILLS

A careful study of 50 landfills in 1977 concluded that 43 out of 50 (86%) had contaminated underground water supplies beyond the boundaries of the landfill. At the other 7 sites, off-site contamination was measured but could not be attributed to the landfills by the strict criteria used in the study. In other words, the study of 50 landfills found groundwater pollution at all 50 sites, but the contamination could be definitely traced to the landfills in only 43 cases (86%).

The study was conducted by Geraghty & Miller of Port Washington, NY, one of the nation's leading hydrology consulting firms, under contract to EPA (U.S. Environmental Protection Agency). They looked at 122 sites in 15 states and finally selected 50 sites in 11 states for careful evaluation. They studied 7 in Wisconsin, 6 in Illinois, 5 in Indiana, 5 in Michigan, 2 in Pennsylvania, 5 in New York, 9 in New Jersey, 3 in Connecticut, 5 in Massachusetts, 2 in New Hampshire, and 1 in Florida.

Criteria for selecting sites were strict: no site was selected if it was already known to be contaminated or if there were reports of bad taste or bad odors from drinking water near the site already; sites were selected to include various geologic settings (various rock and soil types) and various climatic conditions; sites were selected to include different kinds of dumping (landfills and lagoons), and different kinds of wastes. Some of the wastes would be termed "hazardous" today, but many of the wastes involved were not "hazardous" by today's legal definitions and are still allowed in municipal landfills today. Sites had to be at least 3 years old.

The criteria for determining whether a site was contaminating groundwater were strict. (1) Contaminants had to be measured in groundwater beyond the perimeter of the site; (2) the concentration of contaminants downstream of the site had to be greater than the concentration of the same contaminants measured in an uncontaminated background well; (3) all wells used had to be tapping the same aquifer; (4) geologic interpretation of the data by hydrologists had to convince them that the landfills was the source of the contamination.

In 43 out of 50 cases, the landfill was confirmed as the source of contamination. In four other cases, contamination was confirmed, but the area of contamination was so great that sources besides the landfill were also suspected; at three more sites, contamination was found but data could not be gathered from uncontaminated background wells. So contamination was confirmed at all 50 sites, but in 7 cases, the project's criteria could not be met for deciding that the landfill was the culprit.

The term "landfill" was used to mean a dumping ground that accepted garbage, demolition debris, municipal and industrial solid wastes, sludges or liquids. The investigation "concentrated on those landfills with a major component of industrial waste."

Some of the landfills had liners, others did not. Since publishing this study, the EPA has published its opinion several times, that all landfill liners will eventually leak. (See RHWN #37.) Thus this study provides important evidence that all landfills, lined or not, all eventually contaminate groundwater. Lined landfills will contaminate groundwater more slowly than unlined landfills, but the long-term effects will be the same: someone's groundwater will become contaminated whenever municipal solid waste or industrial waste or legally hazardous wastes are placed in the ground.

The study makes some interesting points worth remembering about landfills: "The intermixing of inorganic and organic wastes, wastes of high and low pH, and wastes having different physical properties in a common disposal area, may lead to influences on the environment not anticipated from any single waste material." (pg. 7) This is important because landfill liners are selected to be compatible with the wastes that will be placed in a landfill. However, as this statement says, the mixing of wastes in a landfill will produced unanticipated chemical combinations with unpredictable results. A landfill liner selected to withstand attack from chemicals X, Y and Z may not withstand attack from chemicals X and Z in combination, or Y and Z in combination. The more chemicals involved, the greater the number of possible combinations, the more complex the interactions will be, and the less predictable the results become.

Exhibit C

The study makes another valuable point: "The wastes that are deposited continue to weather and leach for years." (pg. 8) The chemical interactions within a landfill do not cease when the dumping stops. In the case of inorganic materials (arsenic, lead, chromium and so forth) the duration of the hazard is essentially infinite--toxic metals will never change into anything besides toxic metals. (The Geraghty & Miller study found toxic heavy metals at 49 of the 50 sites and found they contaminated groundwater off-site at 40 of the 50 sites.)

When anyone proposes a new landfill and says that liners are being selected to prevent contamination of the environment, you should ask, (a) How can they possibly predict all the possible combinations of chemicals that will be created inside the landfill, producing new combinations of chemicals that will attack the liners?; and (b) What is the expected duration of the hazard inside the landfill vs. the expected duration of the liners that have been selected?

If the proponents of a landfill project are honest, these questions will force them to admit that they are not able to predict the chemicals that will come in contact with the liner (especially since the chemicals used by industry change from year to year, and an average of 1000 new chemicals go into commercial use each year); and they will be forced to admit that the duration of the hazard (in the case of metals at least) is very great (thousands of years or longer) whereas the expected lifetime of any human-created material (including packed clay liners and all FMLs [flexible membrane liners]) is much shorter than the expected hazard. Leakage is inevitable.

Common sense and available data combine to force a single conclusion: all landfills will eventually leak. Landfill liners may *slow* the release of contaminants into groundwater but they cannot *prevent* it. There is no such thing as a secure landfill.

The Geraghty & Miller study is *The Prevalence of Subsurface Migration of Hazardous Chemical Substances at Selected Industrial Waste Land Disposal Sites* [EPA/530-SW-634] first published by EPA in 1977; still available from National Technical Information Service [NTIS], Springfield, VA 22161; phone (703) 487-4650; order No. PB 275103.

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Reprint of:
RACHEL'S HAZARDOUS WASTE NEWS #90

Providing news and resources to the Movement for Environmental Justice – August 15, 1988

LEACHATE FROM MUNICIPAL DUMPS HAS SAME TOXICITY AS LEACHATE FROM HAZARDOUS WASTE DUMPS

[Note: This is the third part of our ongoing services, **What We Must Do**, in which we are developing an overview of the toxic chemical problem, and then presenting a range of solutions. If you have ideas that you believe would help solve the problem of toxics, please send it to us for consideration.]

In a new study, researchers at Texas A&M University have compared leachate from municipal landfills with leachate from hazardous waste landfills and they report, "...There is ample evidence that the municipal waste landfill leachates contain toxic chemicals in sufficient concentration to be potentially as harmful as leachate from industrial waste landfills." Specifically, the Texas researchers compared leachate from several municipal landfills with leachate from the notorious Love Canal landfill (and other hazardous waste landfills, such as Kin-Buc in Edison, NJ) and they found the leachates similar in their cancer-causing potential.

Leachate is the liquid that is produced when rain falls on a landfill, sinks into the wastes, and picks up chemicals as it seeps downward. Industries creating "hazardous wastes" (as legally defined under federal law) may not send those wastes to municipal landfills, but must instead send them to special hazardous waste landfills.

When a new municipal landfill is proposed, advocates of the project always emphasize that "no hazardous wastes will enter this landfill." The Texas study shows that even though municipal landfills may not legally receive "hazardous" wastes, the leachate they produce is as dangerous as the leachate from hazardous waste landfills.

Dr. Kirk Brown and Dr. K.C. Donnelly at Texas A&M, authors of the new study, examined data on the composition of leachate from 58 landfills. The data they reviewed showed 113 different toxic chemicals in leachate from municipal landfills and 72 toxic chemicals in leachate from hazardous waste landfills. The abundance of toxics in municipal landfills probably occurs because the entire spectrum of consumer products ends up in municipal landfills, whereas hazardous waste landfills serve a limited number of industries within a region.

The actual source of the toxic chemicals in municipal landfills is not known precisely. Under federal law (RCRA Subtitle C) each "small quantity generator" can send up to 2640 pounds per year of legally-hazardous chemicals to municipal landfills. In 1980, the EPA [U.S. Environmental Protection Agency] estimated that 600,000 tons per year of legally-hazardous wastes were going to municipal dumps from 695,000 "small quantity generators."

Illegal dumping may be another source; illegal dumping is impossible to prevent entirely because someone bringing in a truckload of wastes may hide a few gallons, or a few barrels, of hazardous chemicals in the middle of the truckload. The higher the price of legal disposal, the more incentive people have to dump illegally. However, the most likely source of most of the toxic materials in municipal landfills is legally-disposed household products like paint solvents, oils, cleaning compounds, degreasing compounds, and pesticides. "In addition, the final depository of most of the products of our modern industrial society is the municipal waste landfill where the paints, plastics, and pharmaceuticals dissolve and degrade in the acidic anaerobic [oxygen-free] environment, thereby, releasing degradation products which may be even more toxic than the products from which they originated," say Brown and Donnelly.

The findings of Brown and Donnelly will come as no surprise to many researchers who have known for years that municipal leachate is as toxic as the leachate from industrial landfills. For example, in an article entitled, "Application of Hydrogeology to the Selection of Refuse Disposal Sites," Ronald A. Landon reported in 1969 in the journal *Ground Water* Vol. 7 (Nov.-Dec., 1969), pgs. 9-13, that "Leachate at its source, that is within the landfill, has concentrations and characteristics of many industrial wastes; and in many instances would be better treated as such a waste." (pg. 12)

What Brown and Donnelly have contributed is a quantitative analysis of the toxicity and the carcinogenic potential of leachates from the two types of landfills.

Brown and Donnelly conclude, "The risk calculations based on suspect carcinogens... indicate that the estimated carcinogenic potency for the leachate from some municipal landfills may be similar

Exhibit D

to the carcinogenic potency of the leachate from the Love Canal landfill."

In industrial landfill leachate, 32 chemicals cause cancer; 10 cause birth defects, and 21 cause genetic damage; in municipal landfill leachate, 32 chemicals cause cancer, 13 cause birth defects, and 22 cause genetic damage.

The new study, "An Estimation of the Risk Associated with the Organic Constituents of Hazardous and Municipal Waste Landfill Leachates," appears in the journal, *Hazardous Waste and Hazardous Materials*, Vol. 5, No. 1 (Spring, 1988), pgs. 1-30. Request a free reprint from Dr. Kirk Brown, Soil and Crop Sciences Department, Texas A&M University, College Station, TX 77843. Phone (409) 845-5201.

WHAT WE MUST DO--PART 3
BFI: "WE'VE GOT THE UPPER HAND"

Five reporters with the Ft. Lauderdale (Fla) *Sun Sentinel* investigated the nation's trash haulers in 22 states in 1987 (see *RHWN* #88 and #89), and reported last December that the waste industry is so aggressive and has grown so large that it often outstrips the ability of government to control it.

The *Sun Sentinel* team wrote, "Officials concede they often are outflanked by the technical expertise the firms can muster, as well as the complexity of affixing blame for causing contamination."

"'These companies often understand the regulations better than the regulators,' said Steven W. Sisk, an EPA [U.S. Environmental Protection Agency] investigator.

John Baker, manager of environmental programs for Waste Management, the largest U.S. waste hauler, says, "In EPA, every two years I'm dealing with new people. The agencies are a little behind in the technical expertise," he said. Mr. Baker blamed low salaries for the turnover.

Richard Oakley, a vice president of Browning-Ferris Industries [BFI], the nation's second-largest hauler, says, "A lot of times when we go for meetings with them, technically we've got the upper hand."

Waste Management and BFI routinely claim that test results showing they've contaminated groundwater are simply "lab error," not evidence of pollution. "Regulators usually accept these claims without independent verification," the *Sun Sentinel* reports.

[We'll mail you all 25 stories from the *Sun Sentinel* for $12.00.]

Reprint of *Rachel's Hazardous Waste News #90*

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Reprint of:
RACHEL'S HAZARDOUS WASTE NEWS #117

Providing news and resources to the Movement for Environmental Justice -- February 21, 1989

THE BEST LANDFILL LINER: HDPE

The very best landfill liners today are made of a tough plastic film called high density polyethylene (HDPE). HDPE has only been in use in this country for this purpose since the early 1980s, so we have little actual experience to go on. However, landfill designers assure us that HDPE resists attack by nearly all chemicals.

Resistance to chemical attack is important because the theory of landfill design says that the landfill liner must maintain its integrity for the duration of the hazard it is supposed to contain. If the garbage in the landfill will remain toxic for thousands of years, the landfill liner must maintain its integrity for thousands of years; if the liner fails before the hazard has gone away, the failed liner will allow the hazard to escape, and we will have simply passed today's problem onto our children and grandchildren.

There are other plastic liners besides HDPE in use today, and we will discuss their characteristics in future issues of *RHWN*. But HDPE is the liner of choice, if you can afford it, so let's start there.

When we looked up HDPE in a standard reference source (the *Kirk-Othmer Encyclopedia of Chemical Technology*, 3rd edition), we learned that HDPE "is not attacked by most inorganic chemicals and is insoluble in most organic solvents at room temperature. In a study of linear polyethylenes, only 14 of 270 chemicals and materials were rated as capable of causing, upon prolonged exposure at room temperature, softening, embrittlement, or a significant loss of strength." The study cited by *Kirk-Othmer* was conducted by the Phillips Petroleum Company in Bartlesville, OK, so we phoned Phillips to learn more.

Phillips has been in the plastic business for 30 years, and they are proud of their HDPE product. They sent us a very informative booklet describing the chemical properties of HDPE. The booklet described the use of HDPE for packaging. Thus the information is very relevent, because that's what a landfill liner is: a huge plastic baggie for packaging wastes; like a plastic bottle or drum, a landfill liner is intended to contain wastes, to prevent them from escaping. The booklet gave us confidence that Phillips has done its homework, but it did not give us confidence in HDPE as a landfill liner.

According to Phillips, there are many household chemicals that will degrade HDPE, permeating it (passing through it), making it lose its strength, softening it, or making it become brittle and crack. If you've ever held a thick (100 mil, or 1/10 of an inch) piece of HDPE landfill liner in your hand, you know it's about as stiff as a linoleum tile. If chemicals make it even stiffer and it cracks under the massive weight of the garbage heaped above it, that's all she wrote for the safety of the local environment.

In addition to many individual chemicals (mentioned below), Phillips lists two major classes of chemicals that are not compatible with HDPE: aromatic hydrocarbons, and halogenated hydrocarbons. The basic aromatic hydrocarbon is benzene (a major component of gasoline); others are toluene (also called methylbenzene), and the three xylenes (o-, m- and p-xylene). Others include naphthalene (moth balls), and p-dichlorobenzene (also moth balls). These aromatic hydrocarbons "permeate excessively and cause package deformation," says Phillips.

Another class of compounds incompatible with HDPE is halogenated hydrocarbons. The most familiar names here are carbon tetrachloride, chloroform, DDT, aldrin, dieldrin, lindane, 2,4-D, 2,4,5-T, trichloroethylene, trichloroethane, per-chloroethylene, and so forth. The full list is very long and growing all the time as chemists find new ways to attach chlorine, fluorine, bromine and iodine atoms to carbon and hydrogen.

The Phillips booklet lists many individual household chemicals as incompatible with HDPE.

Appendix I of the Phillips booklet lists the following chemicals under the heading "can cause stress cracks" in HDPE:

Acids: acetic acid (1% to 10% solution); aqua regia.

Foods & food products: cider, lard, margarine, vinegar, vanilla extract.

Household toiletries and pharmaceutical products: detergents (standard); detergents (heavy duty); dry cleaners; hair oil; hair shampoo; hair wave lotions; hand creams; iodine (tincture) ("embrittlement may occur after prolonged exposure"); lighter fluid; nail polish; shaving lotion; shoe polish (liquid); shoe polish (paste); soap; wax (liquid and paste); amyl alcohol 100%; carbon tetra-

Exhibit E

chloride; chlorobenzene ("softening and part deformation will occur"); chloroform ("softening and part deformation will occur"); cyclohexanol; ethyl alcohol (also known as booze); methyl alcohol (a component of shellac); propyl alcohol.

Oils: castor; mineral; peppermint; vegetable; pine.

Industrial chemicals: amyl alcohol 100%; chlorobenzene; chloroform; cyclohexanol; ethyl alcohol; methyl alcohol; propyl alcohol.

So much for stress cracks. What about common chemicals that can permeate through HDPE? Phillips says "permeation is considered a physical migration of a product through the container walls." Chemicals that will permeate a plastic film will often also physically damage it. Appendix I of the Philips booklet lists the following chemicals (giving the permeation in parentheses):

Household toiletries and pharmaceutical products: lighter fluid ("high"); nail polish ("4% loss per year"); shoe polish (liquid) ("high"); turpentine ("8.5% loss per year").

Industrial chemicals: acetone ("3.4% loss per year"); amyl acetate ("4% loss per year"); amyl chloride ("high"); benzene ("high"); carbon tetrachloride ("80% loss per year"); chlorobenzene ("high; softening and part deformation will occur"); chloroform ("high"); ethylene chloride ("high; softening and part deformation will occur"); gasoline ("high"); toluene ("high; softening, swelling, and part deformation will occur"); trichloroethylene ("high; softening, swelling, and part deformation will occur").

Oils: orange ("high"); peppermint ("high"); pine ("high").

So much for chemicals that pass through HDPE, weakening it as they go.

Appendix II of the Phillips booklet lists the following chemicals as "unsatisfactory" or causing "some attack" on HDPE at room temperature: bromine liquid; butyl acetate; chlorine liquid; chlorosulfonic acid 100%; cyclohexanone; ethyl chloride; methyl ethyl ketone; methyl bromide; methylene chloride 100%; nitrobenzene 100%; oleum concentrated; petroleum ether; tetralin; tetrahydrofuran; xylene.

So long as your municipality's garbage contains none of the items listed above (assuming the information from Phillips is complete), HDPE will perhaps do a good job for you. However, if your garbage is free of these items, you're probably from another planet anyway and therefore you won't need to rely on America's best available landfill liners for solving your resource management problems.

Get *Marlex Polyethylene TIB 2 Packaging Properties* free from: Mrs. Frances L. Campbell, Plastics Technical Center, Plastics Division, Phillips 66 Company, Bartlesville, OK 74004. Phone (918) 661-6600. Additional technical information available from: Phillips 66 Company, P.O. Box 792, Pasadena, TX 77501; phone 1-800-231-1212.

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Reprint of:
RACHEL'S HAZARDOUS WASTE NEWS #316

Providing news and resources to the Movement for Environmental Justice -- December 16, 1992

NEW EVIDENCE THAT ALL LANDFILLS LEAK

Starting in the 1970s and continuing throughout the 1980s, U.S. Environmental Protection Agency [EPA] funded research which showed that burying household garbage in the ground poisons the groundwater. On several occasions, EPA spelled out in detail the reasons why all landfills leak. (For example, see *RHWN #37, #71*, and *#116*)

Then in late 1991, after several years of deliberation, EPA chief William Reilly issued final landfill regulations that allow the continued burial of raw garbage in landfills. (See *RHWN #268.*) EPA's 1991 regulations require an expensive landfill design: two liners in the ground and an impervious plastic cover over the landfill after it has been filled with garbage. This is "state of the art" technology, the very best that modern engineers can build. However, EPA officials still expect such landfills to fail and eventually poison groundwater.

As early as 1978, EPA knew why all landfills eventually leak. The main culprit is water. Once water gets into a landfill, it mixes with the garbage, producing a toxic leachate ("garbage juice"), which is then pulled downward by gravity until it reaches the groundwater. Therefore, the goal of landfill designers (and regulators) is to keep landfills dry for the length of time that the garbage is dangerous, which is forever.

Now a 1992 report from a California engineering-consulting firm, G. Fred Lee & Associates, has examined recent scientific studies and has confirmed once again why modern "dry tomb" landfill technology will always fail and should always be expected to poison groundwater.[1]

The new report, authored by Fred Lee and Anne Jones, reviews recent evidence--much of it produced by government-funded research--that landfill liners leak for a variety of reasons; that leachate collection systems clog up and thus fail to prevent landfill leakage; that landfill leachate will remain a danger to groundwater for thousands of years; that even low-rainfall areas are not safe for landfill placement; that gravel pits and canyons are particularly dangerous locations for landfills; that maintaining a single landfill's cap for the duration of the hazard would cost hundreds of billions, or even trillions, of dollars; that groundwater monitoring cannot be expected to detect landfill leakage; that groundwater, once it is contaminated, cannot be cleaned up and must be considered permanently destroyed; and that groundwater is a limited and diminishing resource which modern societies grow more dependent on as time passes.

A 1990 examination of the best available landfill liners concluded that brand-new state-of-the-art liners of high density polyethylene (HDPE) can be expected to leak at the rate of about 20 gallons per acre per day (200 liters per hectare per day) even if they are installed with the very best and most expensive quality-control procedures.[2] This rate of leakage is caused by pinholes during manufacture, and by holes created when the seams are welded together during landfill construction. (Landfill liners are rolled out like huge carpets and then are welded together, side by side, to create a continuous field of plastic.) Now examination of actual landfill liners reveals that even the best seams contain some holes.

In addition to leakage caused by pinholes and failed seams, new scientific evidence indicates that HDPE (high density polyethylene, the preferred liner for landfills) allows some chemicals to pass through it quite readily. A 1991 report from University of Wisconsin shows that dilute solutions of common solvents, such as xylenes, toluene, trichloroethylene (TCE), and methylene chloride, penetrate HDPE in one to thirteen days. Even an HDPE sheet 100 mils thick (a tenth of an inch)--the thickness used in the most expensive landfills) is penetrated by solvents in less than two weeks.

Another problem that has recently become apparent with HDPE liners is "stress cracking" or "brittle fracture." For reasons that are not well understood, polyethylenes, including HDPE, become brittle and develop cracks. A 1990 paper published by the American Society for Testing Materials revealed that HDPE liners have failed from stress cracks in only two years of use. Polyethylene pipe, intended to give 50 years of service, has failed in two years. Lee and Jones sum up (pg. 22), "While the long-term stability of geomembranes (flexible membrane liners) in landfills cannot be defined, there is no doubt that they will eventually fail to function as an impermeable barrier to leachate transport from a landfill to groundwater. Further, and most importantly at this time, there are no test methods, having demonstrated reliability, with which to evaluate long-term performance of flexible membrane liners."

Recent scientific studies of clay indicate that landfill liners of compacted clay leak readily too. For example, a 1990 study concludes,

Exhibit F

[I]f a naturally occurring clay soil is compacted to high density, thereby producing a material with very low hydraulic conductivity, and if it is maintained within the same ranges of temperature, pressure, and chemical and biological environment, it would be expected to function well as a seepage barrier indefinitely. In waste containment applications, however, conditions do not remain the same. The permeation [penetration] of a compacted clay liner by chemicals of many types is inevitable, since no compacted clay or any other type of liner material is either totally impervious or immune to chemical interactions of various types.

The 1992 study by Lee and Jones is an excellent resource for anyone wanting to understand why landfills always fail. In their footnotes, they cite 18 other studies of landfill problems that they themselves have authored, so their expertise is unquestionable, their information reliable, their arguments solid.

There has been sufficient scientific evidence available for a decade to convince any reasonable person that landfills leak poisons into our water supplies, and are therefore anti-social.

The question remains: what will it take to convince government--specifically EPA--to base policy on its own scientific studies and its own understanding?

The new EPA administrator is Carol M. Browner, an avowed environmentalist from Florida. Asked to describe Ms. Browner's style, John Sheb, head of Florida's largest business trade association, said: "She kicks the door open, throws in a hand grenade, and then walks in to shoot who's left. She really doesn't like to compromise."

Maybe Ms. Browner could start with a wake-up grenade in the Office of Solid Waste.

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[1] G. Fred Lee and Anne R. Jones, *Municipal Solid Waste Management in Lined, "Dry Tomb" Landfills: A Technologically Flawed Approach for Protection of Groundwater Quality* (El Macero, Calif.: G. Fred Lee & Associates, March, 1992). Available from: G. Fred Lee & Associates, 27298 East El Macero Drive, El Macero, CA 95618-1005. Phone (916) 753-9630. 67 pgs.; free.

[2] Rudolph Bonaparte and Beth A. Gross, "Field Behavior of Double-Liner Systems," in Rudolph Bonaparte (editor), *Waste Containment Systems: Construction, Regulation, and Performance* [Geotechnical Special Publication No. 26] (New York: American Society of Civil Engineers, 1990), pgs. 52-83.

CLARIFICATION: RIGHTS OF CORPORATIONS

Last week we suggested the need for a Constitutional amendment declaring that a corporation is not a natural person and is therefore not protected by the Bill of Rights and the 14th amendment to the Constitution. Such an amendment would level the playing field somewhat, giving communities and individuals a greater chance of controlling anti-social corporate behavior. As we noted in earlier newsletters (*RHWN #308, #309*), corporations are now literally out of control. Shareholders cannot control them; boards of directors cannot control them; workers cannot control them; in a competitive world market, even managers have lost control. In some cases, of course, management doesn't care about the environment or the community. But even when managers, as individuals, want to do the right thing, the logic of corporate growth and short-term gain often dictates choices that do not serve the environment or the community. Since corporate behavior is at the root of nearly all environmental problems, stripping corporations of some of their rights (such as the Constitutional protections guaranteed to individual citizens, which the Supreme Court extended to corporations in 1886), would help communities assert control over corporate behavior. Merely *debating* such an amendment would get people thinking about power in the modern world, asking who has a legitimate right to control what. Ask yourself: who ever gave private corporations the right to manufacture and sell products that can destroy the planet as a place suitable for human habitation? In suggesting such a Constitutional amendment, we omitted reference to the original source of the idea, author Richard Grossman.

For historical background on control of corporations, get: Richard Grossman and Frank T. Adams, *Taking Care of Business; Citizenship and the Charter of Incorporation* (Cambridge, Mass.: Charter, Inc., 1992). For a copy, send $4.00 plus a self-addressed, stamped envelope containing 52 cents postage to: Charter, Inc., P.O. Box 806, Cambridge, MA 02140.

[Dated announcement omitted from this reprint.]

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2,000 more acres of land bought by Gold Fields

By P. A. Rice

Gold Fields Mining Corp. is purchasing more than 2,000 acres of federal land on the site of its open pit mining operation in Glamis for $5 an acre, through a process that has been criticized by environmental groups opposed to the loss of public land at "dirt cheap" prices.

Under the controversial 1872 Mining Act, Gold Fields' Mesquite operation, which includes 300 separate claims of about 20 acres each, will acquire title to 79 "load" claims and 153 "mill" sites. Load claims are property on which the ore is located, while mill sites are the land on which the ore is processed.

"The GAO (Government Accounting Office) recently released a study showing that the government is not getting a fair return under this program," said Patricia Schifferle, regional director of The Wilderness Society's western branch.

While groups like The Wilderness Society have described the purchase of lands for as little as $2.50 an acre under the Mining Act as a "scandal," Bureau of Land Management geologist Richard Park says the cost of permitting, surveys and fees required under the law actually pushes that figure to just under $5,000.

"The county gets in on it, the state gets in on it and the federal

See GOLD, A6

$1-a-day hike in day care fees approved

Rates at the day care center operated by Pioneers Memorial Hospital will increase $1 a day within the next month.

The PMH Board of Directors Monday authorized increasing the daily rate for children of hospital employees from $5 to $6 and for non-employees from $9.50 to $10.50.

The new rates will take effect when a recently purchased modular building to house the day care center

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Exhibit G

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N Bush's request. "It is

Gold

(Continued from Page A5)

government gets in on it," Park said. "It adds up to a year or two of permitting and processing."

Gold Fields is presently drawing out about 180,000 ounces of gold a year from its cyanide heap-leach mine north of Highway 78, making it the fifth largest gold mine in the country and the second biggest in the state.

Gold Fields land manager Collon Kennedy in Lakewood, Colo., said the first step in the patenting process is a survey of the land, which must be submitted to the U.S. Cadastral Survey Office. Kennedy said the survey costs between $750 and $2,000 per claim, for a total expense to the mining company of more than $200,000.

In the next step the company must file a "minerals report," from with the federal government will determine whether there is enough gold in the land to support a commercially viable operation.

"It is a substantial investment of time and money," Kennedy said.

Under the mining act, mine operators can "patent" federal land on which they have staked a claim. According to Kennedy, patenting is equivalent to buying the property, but in the case of patenting, the federal government is required to sell the property to the mining company if the operator can prove the operation is economically viable.

Although mining companies can use the land for free, according to Bureau of Land Management geologist Richard Park, patenting a claim offers an advantage to the company, by allowing it to control access by the public to the land, thus reducing its liability insurance. When the patenting process is complete, Gold Fields will also possess a clear title to the property, warding off the threat of other mining operations making a claim on the land.

Gold Fields Mining Corp. is continuing to explore for gold on land in eastern Imperial County. Gold Fields geologist Stanely Watowich in Yuma said the company is investigating land northeast of the intersection of Ogilby Road and Highway 78 east toward Black Mountain, but Watowich called it "a shot in the dark."

Other mining companies have also moved into the area on a quest to find gold here. Battle Mountain Exploration Co. of Tucson is the latest entrant in the gold boom race. A spokesman for the company Monday confirmed that Battle Mountain has applied to the county for permission to explore the area abutting Gold Fields property, north of Highway 78 outside Glamis.

In addition, BLM geologist Parks said three other companies have been investigating gold sites in the Picacho Peak, Indian Pass and areas east of Ogilby Road. And exploratory drilling was begun last year on the old Tumco mine by Texasgulf Co.

Gold Fields' Watowich, however, cautioned that investigative activity may not lead to discovery of gold, although he indicated that the region is rich in resources.

"My evidence is that more companies should be looking because there is a tremendous deposit," Watowich said Monday. "There is a tremendous wealth of gold."

LEGAL ADVETISEMENT

Mineral Application No. CACA 24571, California State Office Bureau of Land Management, 2800 Cottage Way, Sacramento, California 95825 July 07, 1989. Notice is hereby given that Gold Fields Mining Corporation, a Delaware corporation authorized to transact business in California as GFMC EXPLORATION - CALIFORNIA, INC., whose address is 200 Union Boulevard, Suite 500, Lakewood, Colorado 80228 has made application for patent to the GOLD HILL 1 lode mining claim, Mineral Survey No. 6933, Secs. 5 and 8, T. 13 S., R. 19 E., SBM, in the Mesquite Mining District, Imperial County, California described as follows: Beginning at Cor. No. 1, GOLD HILL 1, from which the 1/4 cor. of secs. 8 and 9, T. 13 S., R. 19 E., SBM, bears S. 39° 27' 24" E., 3564.91 ft.; thence S. 24° 53' E., 1482.66 ft. to Cor. No. 2 of said lode; thence S. 66° 39' W., 600.22 ft. to Cor. No. 3 of said lode; thence N. 24° 50' W., 1482.67 ft. to Cor. No. 4 of said lode; thence N. 66° 39' E., 599.14 ft. to Cor. No. 1 of said lode and place of beginning. The location notice and amendments thereto are recorded in Book 152, pg. 482; Book 202, pg. 480 and Book 1492, pgs. 1223 and 1224 in the Official Records of Imperial County, California. The conflicting and adjoining claims as shown on the plat of survey are the Golden Annex A, D and 6 lode mining claims of MS No. 6900 and MILLS 107 and 108 mill sites of MS No. 6923. Rose M. Fairbanks, Chief, Locatable Minerals Section, Branch of Adjudication and Records.

No. 900 Jy 19, 26, A 2, 9 16, 23, 30, S 6, 13

LEGAL ADVERTISEMENT

California or an ancestral lake formed by the Colorado River (Olmsted, Loeltz, and Irelan, 1973). Dates for the shoreline are around 37,000 YBP (Olmsted, Loeltz and Irelan, 1973). Piedmont surfaces slope towards the present dune field. The well-varnished pavement areas of present day interfluves on upper bajadas are of Pleistocene age. Dissected fans and abandoned channels with less-developed pavement and varnish are probably middle to late Pleistocene, while the channel fill in present washes incised into older flood plains is of recent age, although may in part be late Pleistocene (Dillon, 1975).

PRECIPITATION

Based on data collected at the Mesquite Mine for the period 1983 to June 1992, the average annual rainfall is close to 3.5 inches, with a standard deviation of close to 2.2 inches (Table 1). The data in Table 1 shows that 3 years out of 10 have annual rainfall of nearly or greater than 5 inches; a 30 percent chance of such a year, based on the period of data. The year 1992 is unusual in having 4 inches of rain in March, which normally is a dry month. The usual rain season is from July through January. Over the period of record, 2 years have had single months with greater than 3 inches of rainfall (December 1984; 3.14 inches, and March 1992; 4.07 inches). Thus, there is a 1 in 5 chance (20 percent) of such a year, based on the period of data.

DRAINAGE CHARACTERISTICS

The drainage within the study area is linear parallel. In the upper reaches, active channels are incised within wider channels that are now covered with desert varnish. The active channels maintain small flood terraces composed of light reddish-tan clayey silt. These mini-terraces are 2 to 3 feet above the gravel channel supporting the relatively dense bank

From Appendix D-1 to Mesquite DEIS.

Exhibit H

TABLE 1

YEARLY RAINFALL RECORD AT MESQUITE MINE

Year	Rainfall (in.)
1983	1.47
1984	4.99
1985	5.18
1986	3.17
1987	3.03
1988	Data missing
1989	0.01
1990	2.56
1991	3.66
1992 (through June)	7.46

Average annual rainfall: 3.5 inches
Standard deviation: 2.2 inches

Average + 1 standard deviation = 5.7 inches
95% confidence level = 7.13 inches
Average + 2 standard deviations = 7.9 inches

Exhibit I

from
Appendix D-1 Mesquite DEIS. Apr. 94
Botanical and Wildlife Analysis of the Proposed Mesquite Regional Landfill Study Area to ESI from: The Office of Arid Lands Studies, University of Arizona, Tucson Az May 1992, Rev. Aug 92 14 2nd Rev. June 93 85719

TABLE 4.1

RAINFALL DATA(1)

YEAR	WEATHER STATION			
	EL CENTRO	BLYTHE	YUMA	MESQUITE MINE
1980	4.35	4.35	2.07	–
1981	3.86	3.24	1.55	–
1982	4.92	5.17	5.46	–
1983	5.50	5.96	5.36	1.47
1984	2.33	6.06	6.19	4.99
1985	4.72	5.07	2.68	5.18
1986	3.91	3.68	1.73	3.17
1987	2.24	3.33	3.67	3.03
1988	2.43	2.93	2.72	–
1989	0.92	1.62	6.75	–
1990	1.97	1.66	1.95	–
1991	3.86(2)	4.32(2)	3.17	
1992	–(3)	–(3)	5.07	–
Average	3.42	3.95	3.72	3.57

91-296 (10/28/93/sh)

-- = Not Available
(1) Data received from National Weather Service unless otherwise indicated.
(2) Data received from Continental Weather Service.
(3) Not yet available.

From: Mesquite Regional Landfill DEIS Appendix B Apr. 94
Hydrogeologic Assessment Report by Environmental Solutions, Inc. 12/93

Exhibit J

Reprint of:
RACHEL'S HAZARDOUS WASTE NEWS #217

Providing news and resources to the Movement for Environmental Justice -- January 23, 1991

Plastics--Part 2
WHY PLASTIC LANDFILL LINERS ALWAYS FAIL

In the landfill business, government and industry say plastic liners are going to save the day. For example, U.S. Environmental Protection Agency (EPA) and industry both argue that incinerator ash can be safely "disposed of" in a double-lined ash "monofill." A "monofill" is a landfill that contains only ash, no raw garbage. Like any other landfill, the basic design is a bathtub in the ground. The bottom of the bathtub is formed by a huge sheet of plastic. In an expensive landfill, you have two sheets of plastic separated by about two feet of sand and gravel--thus creating one bathtub inside another bathtub. Therefore, a double-lined ash monofill is a landfill (which is really just a polite word for a dump) in the form of a bathtub created by two plastic liners, containing incinerator ash and nothing else.

The theory behind the monofill is that ash contains only small amounts of aggressive organic chemicals that might eat a hole in the plastic liner, so the plastic liner will remain intact and protect us against the lead and cadmium and other toxic metals contained in the ash. (See *RHWN #92.*) As always, the key question is: what is the duration of the hazard and what is the duration of the protection provided by the plastic liner? (The "cap" or umbrella covering a landfill will also be made of the same plastic, so a landfill is really a "baggie" in the ground, containing toxins. What is the lifetime of this baggie? How long will it protect us?)

What is the duration and nature of the hazard from metals in incinerator ash? As we saw earlier (in *RHWN #92*) incinerator ash is rich in toxic metals. For example, it typically contains anywhere from 3000 parts per million (ppm) to 30,000 ppm of lead. U.S. Environmental Protection Agency Region 1 (Boston), and the Harvard University School of Public Health have recommended a cleanup action level of 1000 ppm for lead in soil--in other words, they recommended that remedial action, as would be needed at a Superfund site, should be undertaken wherever lead in soils exceeds 1000 ppm.[1] In recommending the 1000 ppm action level, EPA and Harvard wrote, "While we believe a greater margin of safety would be achieved with an action level of 500 ppm, we think it necessary to set priorities for remedial activity." (What they meant was that there are so many places in urban America where there is 500 ppm lead in soil that EPA would be overwhelmed with work if 500 ppm were set as the threshold for remedial action--so 1000 ppm is a more "realistic" cleanup action level even though it's not as safe as the nation's children really need it to be.)

Given that EPA Region I and the Harvard School of Public Health have recommended that Superfund-type cleanup be initiated whenever soils contain more than 1000 parts per million (ppm) of lead, we know immediately that every ash monofill will have to be cleaned up at some time in the future because all incinerator ash contains more than 1000 ppm lead. (Ash also contains dangerous amounts of other toxic metals--cadmium, arsenic, chromium, and perhaps others, so lead is not the only reason why a cleanup might be needed.) Therefore, when we create ash monofills we know we are creating Superfund sites that our children will pay for--either in damage to their brains and nervous systems, or in enormous outlays of money--or both.

Because lead and cadmium and other metals never degrade into anything else, but remain toxic forever, the duration of the hazard is perpetual, everlasting, eternal. The danger will never go away.

The incineration industry, and its acolytes in government, argue that the plastic liners will protect us and our children forever. Unfortunately, this idea is based on a misunderstanding (or more likely an intentional misrepresentation) of what happens to plastics as they get older. Plastics are not inert; they do not stay the same as time passes. They change. They come apart spontaneously.

A recent book by Deborah Wallace, Ph.D., describes this process well. The book is about the dangers of plastics in fires, but in telling the story of "Why today's fires are so dangerous," (the answer is because burning plastics give off toxic gases that kill people who breathe them) Dr. Wallace included a section on the makeup of plastics at the molecular level, which helps us understand why all plastics eventually fall apart.

The building blocks of plastics are found in natural gas, coal, and wood, but the major source is oil. Oil (like coal and natural gas) is a mixture of molecules of different sizes and structures. To separate out the different molecules, crude oil is distilled in an oil refinery. The oil is boiled and

Exhibit K

smaller, lighter molecules are separated from the larger, heavier molecules. The heavier molecules are then "cracked" to break up the large, heavy molecules into smaller, lighter molecules.

The result of this distillation and cracking is organic chemicals, which is the name for chemicals containing carbon and other elements (chiefly hydrogen, oxygen, and nitrogen). These organic chemicals form the building blocks of pesticides, glues, and plastics. Other chemicals (such as chlorine and lead) are added to give the raw materials new characteristics (strength, stiffness, color, and so forth).

After the building blocks are manufactured, they are turned into plastic resin by a process called polymerization. A polymer is a large, organic, chain-like molecule made of repeated units of smaller molecules. Polymerization usually requires heating the raw materials in the presence of helper chemicals called catalysts, until the building blocks form long chains. Even with the catalysts, a great deal of heat is used in the polymerization process. "Because of this heat, the long chains, even during manufacture, may decompose slightly and have defect points along them," Dr. Wallace explains. The defect points are in the chemical bonds, which absorb the energy used in the manufacturing process. The law of conservation of energy states that the amount of energy in a system *after* the reaction is the same as the amount of energy *before* the reaction. The large amounts of energy (heat) thus must go somewhere; they go into the bonds between the atoms of the plastic and are stored there. But nature does not favor this gain of energy--nature favors low energy chemical bonds, and high energy bonds tend to release their energy by breaking spontaneously. These are defect points. Although polymer scientists have striven to reduce the number of defect points, they have not been able to completely eliminate them from synthetic polymers.

Dr. Wallace continues, "The physical and chemical defects that are produced by ordinary processes in the manufacture and use of plastics demonstrate the fragile and unstable character of these long chains of molecules that are joined by high energy chemical bonds. When the resin is further processed to become the finished marketable product, additional defect points are created because the product is again heated and handled."

As time passes, plastics decompose--their molecules come apart spontaneously--beginning at the defect points. Polymer scientists refer to this decomposition as "aging." All plastics "age" and there is nothing that can be done about it. Within a few years (at most a few decades), all plastics degrade, come apart, and fail. They become brittle, lose their strength, crack, break into fragments. At that point, any protection the plastic may have afforded against the toxic dangers lurking in an ash monofill is gone. By that time, the people who created the ash monofill will have taken their profits and left town, but the deadly residues they leave behind--the ash--will remain to plague the community forever, poisoning the community's children with toxic lead and other metals.

The only affordable solution to this problem is a simple one: prevent the creation of incinerator ash.

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[1]P.L. Ciriello and T. Goldberg, "Lead-Contaminated Soil Cleanup Draft Report" which appears as Appendix E in: Agency for Toxic Substances and Disease Registry, *The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress* (Atlanta, GA: Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services [1600 Clifton Rd. - Mail Stop E-33, Atlanta, GA 30333; phone (404) 639-0730], July, 1988). Free while supplies last.

[2]Deborah Wallace, *In the Mouth of the Dragon* (Garden City Park, NY: Avery Publishing Group [120 Old Broadway, Garden City Park, NY 11040; phone (516) 741-2155], 1990). $17.95.

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OPEN SPACE ACQUISITION/ENVIRONMENTAL PROTECTION

Mine Reclamation Corporation supports the Desert Protection Act. This project is not in conflict with the interests of this legislation and in many ways supports its intent by providing increased land and revenue for open space acquisition and environmental protection.

The Eagle Mountain Landfill and Recycling Center project will benefit the environment in many important ways:

- The project establishes an Environmental Mitigation Trust Fund which will provide up to $57 million in the first ten years of the project's operation for acquisition of key open space areas in the desert, including six major areas proposed for Wilderness designation or National Park status in the California Desert Protection Act.

- The project also creates and funds a Long Term Monitoring effort, composed of biologists from the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service, to ensure that no adverse impacts occur to Joshua Tree National Monument and other sensitive areas near the project site.

A Recycled and Recyclable Paper

Exhibit L

THE ENVIRONMENTAL MITIGATION TRUST FUND

During the planning stage of this project MRC participated in a special Task Force with area citizens and state and federal agencies with special concerns about the potential environmental impacts of this project. This process developed the concept of the Environmental Mitigation Trust Fund whereby MRC will deposit $1 dollar for every ton of waste deposited at the landfill in a special trust fund administered by the County of Riverside Board of Supervisors. The establishment of this Trust Fund was subsequently incorporated in the Conditions of Approval which Riverside County placed on the project. MRC is also committed to establishing this Trust in a Memorandum of Understanding with the National Park Service, the final wording of this MOU is still being developed in cooperation with these three agencies.

Key components of the Environmental Mitigation Trust Fund:

- Eighty-five per cent of the Fund must be used for acquisition of natural open space. Fifteen specific project areas are delineated as the initial priorities for acquisition. These include the following areas which have been proposed in the California Desert Protection Act:

    1. Whitewater Wilderness Study Area (WSA).
    2. Santa Rosa Mountains (WSA).
    3. Joshua Tree National Monument inholdings and buffer areas, including the following areas which the Act proposes to add to what would become Joshua Tree National Park: the Eagle Mountains, the Coxcomb Mountains, and portions of the Cottonwood and Little San Bernardino Mountains.
    4. Mecca Hills (WSA).
    5. Orocopia Mountains (WSA).
    6. Chuckwalla Mountains (WSA).

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- Additionally, Trust Funds are also earmarked for several other areas which federal agencies have an on-going involvement in acquiring for habitat conservation. These areas are: Indio Hills (Coachella Valley Fringe-Toed Lizard Preserve), Chuckwalla Bench Desert Tortoise Area, Morongo Canyon Area of Critical Environmental Concern (ACEC), Dos Palmas/Salt Creek ACEC, and the Santa Rosa Mountains National Scenic Area.

- Project revenues, assuming a waste stream of 2,000 tons per day in the first year, and an increase of 2,000 tons per day each year until full annual operating capacity were reached in Year 10 would create up to $57 million in revenue for the Trust Fund, assuming the use of revenue bonds by the county to maximize the amount of open space acquired in the first ten years.

Long Term Monitoring Team

At the Task Force meetings mentioned above, the National Park Service proposed, and MRC agreed to the establishment of a Monitoring Team to address long term, often subtle impacts of the landfill operation on adjacent desert ecosystems which cannot be fully predicted. Such a monitoring effort also significantly advances scientific understanding of desert ecosystems in a way which enhances various resource agencies' ability to effectively manage and protect those ecosystems, including in particular the Pinto Basin portion of Joshua Tree National Monument.

- The Monitoring Team that has been proposed consists of one full-time field biologist each from the National Park Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and MRC to function as an interdisciplinary team overseen by a Monitoring and Research Methodology Oversight Committee composed of academic experts.

- The Monitoring Team would develop baseline inventories of the desert ecosystems in the project and surrounding areas, and monitor project impacts over the life of the landfill and the closure period to ensure that no adverse impacts from the landfill operations occur. Should the monitoring and research reveal problem areas, a process is delineated in the MOU between the resource agencies and MRC to ensure that necessary mitigation measures or changes in landfill operations can be required to avoid adverse impacts from the project.

- Up to 15% of the Environmental Mitigation Trust Fund revenues are committed to funding the Long Term Monitoring Team.

A Recycled and Recyclable Paper

CITIZENS OVERSIGHT COMMITTEE

A Citizens Oversight Committee will be established to insure ongoing local input and:

- To review and report on the effectiveness of mitigation and regulatory measures that have been mandated by the various responsible public agencies.
- To assure that state and federal regulatory agencies are fully apprised of community concerns.
- To provide an easily accessible public forum for community concerns.
- To provide reports to regulatory agencies and the media regarding the status of the project and mitigation measures.

The Oversight Committee will be composed of four members appointed by the Board of Supervisors, at least two of whom must reside in the Eagle Mountain/Lake Tamarisk/Desert Center area, and at least one of whom shall be a member of a recognized environmental group; two members appointed by CVAG; one member appointed by WRCOG; and an ex officio member appointed by MRC.

BIOLOGICAL RESOURCES

$1-a-ton of waste or up to $6 million per year will be set aside to purchase open space desert habitat to assist in establishing the proposed Desert Protection Act and for the protection of rare and threatened desert species.

The Desert Tortoise: 375 acres of prime tortoise habitat will be purchased in the Chuckwalla Bench Management Area.

The Nelson's bighorn sheep: a two year monitoring program will be established and three new water sources will be developed.

Sensitive plants and areas will be flagged to enable workers to avoid impacting these sensitive areas.

A raven control program will be established if monitoring of the raven population indicates that a threat is posed to sensitive desert species.

Desert Pupfish: mitigation measures include monitoring the population, hand removal of weeds rather than the use of herbicides, a biologist's review of major trestle maintenance or repair plans, and the development of a contingency plan.

A qualified biologist will precede trains to remove any tortoises from the railway and from potential truck traffic.

A mandatory worker education program focussing on environmental safety will be instituted.

A Recycled and Recyclable Paper

Waste Not
The Weekly Reporter for rational resource management
199

A publication of *Work On Waste USA, Inc.*, 82 Judson, Canton, NY 13617 315-379-9200 July 1992

MUNICIPAL WASTE INCINERATION BANNED IN RHODE ISLAND

Part 2.

Rhode Island's Waste Management Goal: 70% diversion of waste from landfills.

Rhode Island State Senate **Act 92-S 2502** banned municipal solid waste incineration in the State. This act was passed when it was attached to the State's 1993-1994 budget which was signed into law on July 14, 1992 by R.I.'s Governor Bruce Sundlun over the fierce objections, intensive lobbying efforts and threats of a $100 million lawsuit against the State by **OGDEN MARTIN.** This act was first introduced on 2-13-92 by Rhode Island State Senators Paul P. Pederzani III, Montalbano, Acciardo, Sabatini, D'Ambra, et al, and lobbied for by the Rhode Island chapter of the national **War on Waste Campaign** spearheaded by **Clean Water Action** and **Concern Inc.** of Rhode Island (not affiliated with the national **Concern** group). Over 20 groups in R.I. signed on to the **WOW** campaign which included: **Sierra Club, R.I. Group for Alternatives to Spraying Pesticides, Rhode Islanders for Safe Power, Hispanics Against the Incinerator** of Central Falls, **WATER** of Johnston, and the **National Education Assoc. of R.I.** This act would never have been signed into law were it not for a combination of informed and determined state legislators and dedicated, alert and untiring citizens groups. State Senator Pederzani authored Act 92-S 2502. Pederzani was a co-founder and President of **Concern Inc.** of R.I. and was elected to the Rhode Island State Senate while campaigning against municipal solid waste incinerators.

The following are excerpts from Act 92-S 2502, approved on July 14, 1992, which banned municipal solid waste incineration in Rhode Island.

* "The following are declared to be policies of the state of Rhode Island. That the ultimate solid waste management objective of the state is to maximize recycling and reuse of solid waste."
* "That solid waste management facilities and services be provided for municipalities, institutions, and persons in the state at reasonable costs, by state solid waste management systems and facilities, where the services and facilities are considered necessary and desirable..."
* "An integrated approach shall be adopted with respect to solid waste management planning and implementation activities which shall be based on the following priorities to the extent economically feasible:
  - (a) Reduction of the amount of source waste generated;
  - (b) Source separation and recycling;
  - (c) Waste processing such as recycling based technology to reduce the volume of waste necessary for land disposal..."
* "That the Rhode Island solid waste management corporation will operate the central landfill in a manner designed to afford to the environment and to the citizens of the state who reside near the landfill the maximum protection which is available, for the land disposal of rubbish and minimize or eliminate land disposal of solid waste."
* "That due to the myriad of over four hundred (400) toxic pollutants including lead, mercury, dioxins and acid gasses known to be emitted by solid waste incinerators, the known and unknown threats posed by solid waste

Exhibit M

incinerators to the health and safety of Rhode Islanders, particularly children, along with the known and unknown threats to the environment are unacceptable."

* "That despite the use of state of the art landfill liner systems and leachate collection systems, landfills and particularly incinerator ash landfills release toxic leachate into ground and surface waters which poses an unacceptable threat to public health, the environment and the state's limited ground and surface water resources."

* "That incineration of solid waste is the most costly method of waste disposal with known and unknown escalating costs which would place substantial and unreasonable burdens on both state and municipal budgets to the point of seriously jeopardizing the public's interest."

* "Resource recovery system means the corporation's integrated system of resource recovery consisting of a series of waste processing facilities designed to process a minimum of seventy percent (70%) of the municipal and commercial solid waste streams by employing an on site waste separation technology for the purpose of recycling and or/reusing a minimum of seventy percent (70%) of the solid waste stream, and minimal use of landfill capacity and residue disposal from waste processing facilities and any other related facilities and services."

* " 'Waste processing facility' means a solid waste facility employing recycling based technology employing an on site waste separation technology designed to process both nonsource separated and source separated solid waste for the purpose of recycling, and/or composting, and/or reusing a minimum of seventy percent (70%) of the municipal solid waste stream."

* "The plan shall not include incineration of solid waste."

* "The plan shall limit the use of landfills to providing temporary backup or bypass disposal capacity and residue disposal from waste processing facilities. The plan shall also seek to minimize landfilling of any type of waste and phase out the use of landfills for waste disposal."

* "The plan shall include composting of yard waste and other appropriate organic wastes..."

* "The plan shall primarily rely on a system of waste processing facilities."

* "The plan shall provide that the corporation actively pursue research and develop new uses for materials recovered from solid waste to maximize revenue from recycled materials."

* "In choosing vendors for the facilities, preference shall be given to vendors who:

(1) Provide private financing and privately own the facilities with minimal or no financial risk to the corporation or state;

(2) Provide a waste processing facility technology which on-site separates, recovers for recycling and composting the highest percentage of the waste stream and lowest amount of residue;

(3) Demonstrate the highest number of primary and secondary markets for materials recovered from the waste stream and alternative material uses in the event a material market fails or becomes economically infeasible;

(4) Can provide the greatest degree of flexibility in the type of materials outputed from the facility in order to adjust to changing markets for recovered materials; and

(5) Guarantee a fixed rate tipping fee and/or fixed escalation rate of tipping fees for the longest time periods...

(i) In addition to any source separation programs for household hazardous waste, the facilities shall have the capacity to separate household hazardous wastes and hazardous wastes from the waste stream and it shall be the responsibility of the corporation to provide for proper disposal of such wastes at a licensed facility. The corporation may enter an agreement with the facility vendor to provide for such disposal."

For more information contact: **Cindi Roper, War on Waste Campaign, c/o Clean Water Action, 2 Charles St., Providence, RI 02904. Tel: 401-331-6972.**

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S.D. UNION-TRIBUNE
SEPT 16, 1992

County to retain control of landfills

Supervisors adopt ownership policy

By EMMET PIERCE
Staff Writer

County landfills will remain in public ownership under a policy adopted yesterday by the Board of Supervisors.

The privatization policy will allow the county to consider proposals for private ownership of other solid-waste facilities, such as trash transfer stations and recycling operations, on a case-by-case basis.

In approving the policy, the supervisors rejected a staff recommendation to allow private ownership only of waste facilities that involve alternative technologies.

Attorney James Milch, representing Waste Management Inc., the nation's largest waste-disposal firm, said he was pleased that the staff recommendation had been rejected. He expressed disappointment that the adopted policy prohibits the private ownership of county landfills, however.

In testimony before the board, Milch said restricting private participation in the county's solid-waste system hurts free enterprise.

"It is urged that with some special crystal ball we should know that this county can do it better and cheaper" than private companies, Milch said. "The reasonable approach is to keep your options open."

Several speakers urged the board to keep the private sector out of the landfill business. Carol Metzger of Bonsall noted that Waste Management is seeking permission to develop a landfill in Gregory Canyon, near Pala.

As envisioned, the facility would be operated privately or in partnership with the county.

"If I have to have a dump next to my avocado ranch, I'd rather have you guys running it," Metzger told the supervisors.

North County activist Ruth Harber also urged supervisors to keep county dumps in public ownership.

"This policy will serve the county well," she said.

Donna Tisdale of the Backcountry Against Dumps group warned that the public would have less to say about the operation of privately owned landfills.

The county's privatization policy evolved from a study completed last year by consultants Deloitte & Touche. It concluded that continued public ownership of the solid-waste system would result in reduced costs, minimization of long-term risks and tighter control over operations.

Lower costs can be realized "because of the public sector's ability to finance capital construction and lower interest rates in the absence of profit," said a staff report prepared for the supervisors.

It was estimated that the county could save $256 million over a decade by maintaining ownership of solid-waste facilities.

Before he voted to keep landfills in public ownership, North County Supervisor John MacDonald questioned whether such a policy would limit the county's ability to respond to garbage-disposal problems.

"We need a policy that takes a serious look at how we can take advantage of the private sector," MacDonald said.

He noted that the county has had difficulty finding a site for a new landfill in North County. Gregory Canyon is one of four proposed North County landfills under review by the county. None is expected to be ready for operation before 1996, however.

In the meantime, the San Marcos landfill — North County's only dump — is rapidly reaching its capacity.

An expensive trash-diversion program may be implemented if the state rejects a county proposal to expand the San Marcos dump, officials say. The California Integrated Waste Management Board is expected to issue a ruling Sept. 30.

The privatization policy, which was adopted in a 4-to-0 vote, with Supervisor Leon Williams absent, essentially formalizes existing practices, said Deborah Castillo, spokeswoman for the solid-waste division.

Under the policy, the county can continue to contract with private companies to operate its landfills.

Exhibit N

RACHEL'S HAZARDOUS WASTE NEWS #373

Providing news and resources for environmental justice -- January 20, 1994

INVISIBLE KILLERS: FINE PARTICLES

Eight studies of air pollution in U.S. cities have now shown that fine particles (the invisible soot emitted by incinerators, automobiles, power plants and heating units) are presently killing about 60,000 Americans each year.[1] More than a dozen studies have, in one way or another, confirmed this relationship. Furthermore, there appears to be no threshold, no level below which effects disappear. This means that people are being killed by air pollution levels well within existing federal standards.

To summarize bluntly, any increase in fine particles in the atmosphere kills someone. The victims remain nameless, but they have been deprived of life all the same. Mere compliance with federal standards does not protect the public. Any increase in the number of small particles in the air elevates the death rate. This has obvious implications for certain technologies: incinerators and fossil-fuel-powered machines (automobiles and trucks, power plants and heating units). To protect public health, these technologies must be avoided, or fitted with expensive control equipment, or replaced by cleaner alternatives.

People have known for a long time that particles in the air can kill. In 1952, a dense smog killed 4000 people during one week in London, and since then no one has doubted the cause-and-effect relationship. The question, therefore, isn't whether airborne particles can harm humans, but rather, how much pollution causes how much damage, and, secondly, is there a threshold, an amount below which no effects are seen?

Throughout the '50s and '60s, complacent authorities assumed there was a threshold -- some amount that was safe. However, after 1975, a revolution took place in scientific understanding of fine particles and health. In 1979, the National Research Council of the National Academy of Sciences,[2] and the United Nations,[3] both published book-length studies of the dangers of small particles to humans. Here is the current view: humans evolved in an environment where dust was made up of large particles. Humans therefore evolved means for protecting themselves against large particles. Large particles are filtered our by hairs inside the nose, mucous membranes in the throat and airways, and other mechanisms. However, modern combustion machines produce small particles which pass right by these natural protections and then enter the deep lung. In the deep lung, air comes into contact with a person's blood stream: this is where oxygen passes into the body and carbon dioxide passes out with each breath we take. Putting tiny particles of pollution directly in contact with the surface of the deep lung is a recipe for trouble. Because of their origin in combustion processes, most fine particles are coated with toxic materials -- metals like lead and mercury, or toxic organics like polycyclic aromatic hydrocarbons (PAHs). So fine particles provide a uniquely efficient carrier, giving dangerous toxins direct entry into the blood stream.

Armed with new knowledge, in 1987, U.S. Environmental Protection Agency (EPA) established new, stricter standards for particles in the air. The 1987 standard, which governs today, is expressed in terms of small particles (also called particulate matter) that measure 10 micrometers or less in diameter. (A meter is 39 inches and a micrometer is a millionth of a meter.) These are called respirable or inhalable particles because, as we saw above, they are small enough to get into the deep lung where they cause various kinds of damage. The shorthand way to refer to these pollutants is PM_{10} (meaning Particulate Matter 10 micrometers or less in diameter). Current U.S. standards say that the ambient air (the general air we all breathe) may contain no more than 50 micrograms (μg) of PM_{10} particles per cubic meter (m^3) of air as an annual average, and the one-day average should exceed 150 micrograms per cubic meter ($\mu g/m^3$) only one day each year. (A gram is 1/28th of an ounce and a microgram is a millionth of a gram.)

Since 1987, evidence has been accumulating, showing that the 1987 standards do not protect human health. The question about the existence of a PM_{10} threshold was addressed first by Joel Schwartz of U.S. Environmental Protection Agency (EPA). Schwartz reviewed data on air pollution and deaths from London, 1958-1972, and showed there was no threshold down to the lowest observed levels of air pollution.[4] A study published last month in the *New England Journal of Medicine*, of six U.S. cities, including several that are not heavily polluted, such as Portage, Wisconsin and Topeka, Kansas, shows death rates increasing with just 15 $\mu g/m^3$ of PM_{10} pollutants.[5] In all, at least 8 studies have now shown that PM_{10} at any level kills people. It seems clear there is no threshold.

A study of people in Steubenville, Ohio, showed that each increase of 100 $\mu g/m^3$ of total suspended particles (of which PM_{10} represents about half) is associated with a 4% increase in the death rate, with no threshold.[6] Interestingly, the Steubenville study showed that the death rate changes as fine particle levels change, but not as sulphur dioxide levels change.

In Philadelphia, a close relationship between PM_{10} pollutants and the death rate was observed.[7] Once again sulfur dioxide levels did not correlate with the death rate, but particle concentrations did. Here each increase of 100 $\mu g/m^3$ of total suspended particles (of which PM_{10} makes up half) was associated with a 7% increase in the death rate. There was no threshold.

A study of people in Detroit showed that a 6% increase in the death rate was associated with each increase of 100 $\mu g/m^3$ of total suspended particles (of which PM_{10} makes up half).[8] There was no evidence of a threshold. Sulfur dioxide levels were not signifi-

Exhibit O

cantly associated with increases in the death rate.

Studies[9] of St. Louis, Missouri and Kingston, Tennessee, showed that the death rate increased 16% (St. Louis) and 17% (Kingston) with each addition of 100 $\mu g/m^3$ of PM_{10} pollutants to the air. Associations with gaseous pollutants -- sulfur dioxide, nitrogen oxides and ozone -- did not come close to achieving statistical significance.

In the Utah Valley, a study of the population of Provo revealed that the daily death rate was closely associated with levels of PM_{10} pollution.[10] The Utah Valley is unique because PM_{10} is the only pollution present there in significant quantities (contributed chiefly by a steel mill). For every increase of 100 $\mu g/m^3$ of PM_{10} pollutants, there was a 16% increase in the death rate, and no threshold was observed.

In all cities, the increase in deaths was most notable among people older than 65 and in people with chronic obstructive pulmonary disease (COPD) or cardiovascular disease.

There is a remarkable consistency apparent in all these studies: a 100 $\mu g/m^3$ increase in PM_{10} is always accompanied by an 8% to 17% increase in the death rate. Joel Schwartz, the only EPA employee ever given a "genius award" by the MacArthur Foundation, re-analyzed data from London's 1952 killer smog and showed that the death rate increased 6.4% for each increase of 100 $\mu g/m^3$ total suspended particles, or about 13% for each 100 $\mu g/m^3$ increase in PM_{10} pollutants--again, remarkably consistent with the other studies.

No epidemiological study can prove a cause and effect relationship because it is always possible that some key factor was not considered. Until last month, skeptics could say smoking might explain why death rates increase as PM_{10} concentrations increase. But the study published last month in the *New England Journal of Medicine* looked at 8111 adults in six American cities and showed that smoking did not explain the increased death rate observable when PM_{10} concentrations rise.[5] Smoking has now been ruled out.

Joel Schwartz recently quoted the British researcher, Bradford Hill, saying, "All scientific work is incomplete... All scientific work is liable to be upset or modified by advancing knowledge. That does not confer upon us a freedom to ignore the knowledge we already have, or to postpone the action that it appears to demand at a given time." Then Schwartz added: "At this given time, the knowledge we already have seems to demand a reduction in population exposure to airborne particles."[1]

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[1] Seven studies are reviewed by Joel Schwartz, "Particulate Air Pollution and Daily Mortality: A Synthesis," *Public Health Reviews 1991/1992* Vol. 19 (1992), pgs. 39-60. For the 8th, see footnote 5. The 60,000 figure is taken from "Air Pollution in Typical U.S. Cities Increases Death Risk," press release dated May 13, 1991, from the Harvard School of Public Health, Boston, Mass. describing findings later reported in Joel Schwartz and Douglas W. Dockery, "Increased Mortality in Philadelphia Associated With Daily Air Pollution Concentrations," *American Review of Respiratory Disease* Vol. 145 (1992), pgs. 600-604. Two million deaths occur in the U.S. each year; according to Schwartz and Dockery, fine particles account for 3%. See also, Michael Weisskopf, "Particles in the Air Help Kill 60,000 a Year, Study Says," *Washington Post* May 13, 1991, pg. A13.

[2] National Research Council, *Airborne Particles* (Baltimore: University Park Press, 1979).

[3] United Nations, *Fine Particulate Pollution* (NY: Pergamon Press, 1979).

[4] Joel Schwartz and Allan Marcus, "Mortality and Air Pollution in London: A Time series Analysis," *American Journal of Epidemiology* Vol. 131 (1990), pgs. 185-194.

[5] Douglas Dockery and others, "An Association Between Air Pollution and Mortality in Six U.S. Cities," *New England Journal of Medicine* Vol. 329 (1993), pgs. 1753-1759; see also pgs. 1807-1808.

[6] Joel Schwartz and Douglas Dockery, "Particulate Air Pollution and Daily Mortality in Steubenville, Ohio," *American Journal of Epidemiology* Vol. 135 (1992), pgs. 12-19; see also pgs. 20 and 23 for discussion of the Steubenville study.

[7] Philadelphia study cited in note 1, above.

[8] Joel Schwartz, "Particulate Pollution and Daily Mortality in Detroit," *Environmental Research* Vol. 56 (1991), pgs. 204-213.

[9] Douglas W. Dockery and others, "Air Pollution and Daily Mortality: Associations with Particulates and Acid Aerosols," *Environmental Research* Vol. 59 (1992), pgs. 362-373.

[10] C. Arden Pope III and others, "Daily Mortality and PM_{10} Pollution in Utah Valley," *Archives of Environmental Health* Vol. 47 (1992), pgs. 211-217.

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COUNTY OF SAN DIEGO, CALIFORNIA
BOARD OF SUPERVISORS POLICY

Subject	Policy Number	Page
Ownership of Solid Waste Management/Disposal Facilities	A-116	1 of 2

Purpose

To establish Board of Supervisors' policy relative to public ownership of landfills, urban & rural transfer stations, and other related solid waste facilities that are part of the County's solid waste system and under the control of the County, with the possible exception of alternative technology facilities.

Background

Currently all County solid waste disposal facilities (landfills) are publicly owned. As the Board of Supervisors seeks solid waste management solutions for the 1990s and the next century, a system of new landfills, transfer stations, material recovery facilities (MRFs), and related facilities will be needed to replace or supplement existing landfills.

In providing a comprehensive solid waste handling and disposal system for the region, it is important to assure that the system is economic and cost effective while minimizing risk to the environment. It is also important that long term responsibility for solid waste disposal sites, including the liability for potential post-closure problems, be clearly established. Lastly, the level of control of solid waste facilities influences the level of public involvement in and effective operation of the facility. These issues are impacted by the factor of ownership.

Lower costs can be realized by public ownership because of the public sector's ability to finance capital construction at lower interest rates and the absence of profit during the operating life of the facility. According to a 1991 study, it is estimated that the County can save $256 million over a ten year period by maintaining public ownership. Of several factors affecting costs of private ownership, the pre-tax profit margin of private companies is the most significant. For the period of 1988-90, eight of the largest private solid waste management firms in the country averaged 18.7% profit per year.

Liability for solid waste facilities, especially closed landfills, is the responsibility of the owner. Under private ownership, there is no guarantee that such owner will retain indefinite liability for closed sites because companies go out of business or change corporate structure. This leaves the ultimate responsibility to the public. Public ownership of the site assures single party continuity throughout the life of a facility, including design, construction, operation, closure, and ongoing post-closure monitoring.

The final issue is that of control. Public ownership of waste management/disposal facilities enables the County to manage disposal activities at levels beyond the minimal standards required by law. Furthermore, public ownership insures public participation in their operation. Active public involvement and input is necessary to ensure that the facilities are operated in the best interests of the public.

Exhibit P

COUNTY OF SAN DIEGO, CALIFORNIA
BOARD OF SUPERVISORS POLICY

Subject	Policy Number	Page
Ownership of Solid Waste Management/Disposal Facilities	A-116	2 of 2

An exception to public ownership of solid waste management facilities may be for any type of facility except landfills. These would include transfer stations, material recovery facilities as well as alternative technology facilities. Proposals for private development and ownership of such facilities will be evaluated on a case by case basis.

Policy

It is the Policy of the Board of Supervisors that, for those facilities which are part of the County's solid waste system:

1. All landfills shall be owned by the County of San Diego. The operation of these facilities shall be determined utilizing Board Policy B-63, Competitive Determination of Optimum Service Delivery Method. County system solid waste facilities are those funded by the tipping fees collected by San Diego County.

2. On a case by case basis the County may consider proposals for private ownership of transfer stations, material recovery facilities and alternative technology facilities. In the event of private ownership of a facility, all operation policies and fees shall be subject to Board review and approval.

Sunset Date
This policy will be reviewed for continuance by 12-31-02.

Board Action
9-15-92 (32)

CAO Reference

1. Department of Public Works

STATE: CALIFORNIA COUNTY: IMPERIAL

P70/71/72. EMPLOYMENT STATUS
(UNIVERSE: PERSONS 16 YEARS AND OVER)

	IN ARMED FORCES	CIVILIAN FORCE			NOT IN LABOR FORCE	total #s	% employed
		EMPLOYED	UNEMPLOYED	RATE			
TOTAL	478	36,412	6,156	14.5%	32,645	75,231	48.4
MALE	426	21,177	3,665	14.8%	11,072	35914	59.0
FEMALE	52	15,235	2,491	14.1%	21,573	39 299	38.7
WHITE	385	25,710	3,867	13.1%	22,196	51773	49.7
MALE	333	14,970	2,291	13.3%	7,768	25029	59.8
FEMALE	52	10,740	1,576	12.8%	14,428	26744	40.2
BLACK	17	768	169	18.0%	1,050	1987	38.7
MALE	17	463	109	19.1%	489	1061	43.6
FEMALE	0	305	60	16.4%	561	962	31.7
AMERICAN INDIAN, ESKIMO, ALEUT	10	472	108	18.6%	599	1197	39.4
MALE	10	271	69	20.3%	205	545	49.7
FEMALE	0	201	39	16.2%	394	634	31.7
ASIAN AND PACIFIC ISLANDER	16	883	38	4.1%	672	1593	55.4
MALE	16	507	24	4.5%	295	826	61.4
FEMALE	0	376	14	3.6%	377	767	49.0
OTHER RACE	50	8,579	1,974	18.7%	8,128		
MALE	50	4,966	1,172	19.1%	2,315		
FEMALE	0	3,613	802	18.2%	5,813		
HISPANIC ORIGIN	94	20,833	4,942	19.2%	20,047	35983	57.9
MALE	94	12,300	2,893	19.0%	6,084	21277	57.8
FEMALE	0	8,533	2,049	19.4%	13,963	24545	34.8

non hispanic white
male 4 877
female 2670
2 207

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Exhibit Q

STATE: CALIFORNIA COUNTY: IMPERIAL

P80/81/107/108/110/111. HOUSEHOLD, FAMILY AND NONFAMILY INCOME IN 1989

	HOUSE-HOLDS	FAMILIES	NONFAMILY HOUSEHOLDS
$ 0 - 4,999	2,176	1,345	975
$ 5,000 - 9,999	5,183	2,929	2,353
$ 10,000 - 12,499	2,160	1,746	440
$ 12,500 - 14,999	2,025	1,705	343
$ 15,000 - 17,499	1,811	1,425	351
$ 17,500 - 19,999	1,633	1,385	222
$ 20,000 - 22,499	1,475	1,255	237
$ 22,500 - 24,999	1,385	1,280	146
$ 25,000 - 27,499	1,428	1,205	157
$ 27,500 - 29,999	1,202	1,011	178
$ 30,000 - 32,499	1,302	1,085	238
$ 32,500 - 34,999	912	832	70
$ 35,000 - 37,499	1,193	1,016	125
$ 37,500 - 39,999	762	654	89
$ 40,000 - 42,499	877	804	64
$ 42,500 - 44,999	558	480	70
$ 45,000 - 47,499	736	604	103
$ 47,500 - 49,999	568	508	35
$ 50,000 - 54,999	1,260	1,180	123
$ 55,000 - 59,999	781	694	48
$ 60,000 - 74,999	1,523	1,373	98
$ 75,000 - 99,999	1,091	990	84
$100,000 - 124,999	398	370	20
$125,000 - 149,999	167	161	0
$150,000 OR MORE	251	245	6
TOTAL	32,857	26,282	6,575
MEDIAN INCOME	$22,442	$25,147	$9,844
MEAN INCOME	$30,303	$33,119	$17,174
LESS THAN $150,000	$28,399	$30,845	$16,834
$150,000 OR MORE	$277,651	$274,713	$390,000

P89 THROUGH P105. HOUSEHOLDS AND MEAN HOUSEHOLD INCOME IN 1989 BY INCOME SOURCE (UNIVERSE: HOUSEHOLDS)

	HOUSEHOLDS	MEAN INCOME
WITH WAGE OR SALARY INCOME	24,369	$28,745
NO WAGE OR SALARY INCOME	8,488	
WITH NONFARM SELF-EMPLOYMENT INCOME	3,489	$22,830
NO NONFARM SELF-EMPLOYMENT INCOME	29,368	
WITH FARM-EMPLOYMENT INCOME	732	$29,923
NO FARM-EMPLOYMENT INCOME	32,125	
WITH INTEREST, DIVIDEND, OR RENTAL INCOME	6,654	$6,883
NO INTEREST, DIVIDEND, OR RENTAL INCOME	26,203	
WITH SOCIAL SECURITY INCOME	8,994	$7,105
NO SOCIAL SECURITY INCOME	23,863	
WITH PUBLIC ASSISTANCE INCOME	5,970	$5,637
NO PUBLIC ASSISTANCE INCOME	26,887	
WITH RETIREMENT INCOME	4,556	$7,457
NO RETIREMENT INCOME	28,301	
WITH OTHER TYPE OF INCOME	4,499	$3,620
NO OTHER TYPE OF INCOME	28,358	
WITH EARNINGS	25,505	
NO EARNINGS	7,352	

(EARNINGS = WAGE OR SALARY INCOME + SELF-EMPLOYED INCOME)

P112/113. WORKERS IN FAMILY AND MEAN INCOME IN 1989 (UNIVERSE: FAMILIES)

WORKERS	FAMILIES	MEAN INCOME
NONE	4,066	$13,722
1	8,414	$24,693
2	10,465	$42,352
3 OR MORE	3,337	$49,039

P109. MEAN FAMILY INCOME IN 1989 BY FAMILY TYPE & PRESENCE OF CHILDREN UNDER 18 YEARS (UNIVERSE: FAMILIES)

	MEAN INCOME
MARRIED-COUPLE FAMILY:	
WITH OWN CHILDREN	$36,367
NO OWN CHILDREN	$38,897
OTHER FAMILY:	
MALE HOUSEHOLDER, NO SPOUSE	
WITH OWN CHILDREN	$21,059
NO OWN CHILDREN	$28,237
FEMALE HOUSEHOLDER, NO SPOUSE	
WITH OWN CHILDREN	$13,443
NO OWN CHILDREN	$21,397

P114/115/116. PER CAPITA INCOME IN 1989 (UNIVERSE: TOTAL PERSONS OR PERSONS 15 YEARS AND OVER)

	PER CAPITA INCOME		PER CAPITA INCOME
TOTAL PERSONS	$9,208	WHITE	$10,524
IN HOUSEHOLDS	$9,284	BLACK	$7,846
IN GROUP QUARTERS:		AMER IND	$5,953
INSTITUTIONALIZED	$4,027	ASIAN	$10,878
NONINSTITUTIONALIZED	$7,717	OTHER	$6,064
		HISPANIC	$6,260

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Exhibit R

STATE: CALIFORNIA COUNTY: IMPERIAL

P28 AGE BY LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH
(UNIVERSE: PERSONS 5 YEARS AND OVER)

	AGE			
	5 - 17	18 - 64	65 +	TOTAL
SPEAK ONLY ENGLISH	8,164	21,298	6,481	35,943
SPEAK SPANISH:				
SPEAK ENGLISH "VERY WELL"	11,224	18,202	1,165	30,591
SPEAK ENGLISH "WELL"	5,422	7,559	667	13,648
SPEAK ENGLISH "NOT WELL"/"NOT AT ALL"	2,718	12,029	2,314	17,061
SPEAK ASIAN OR PACIFIC ISLANDER LANGUAGE:				
SPEAK ENGLISH "VERY WELL"	132	349	59	540
SPEAK ENGLISH "WELL"	55	133	53	241
SPEAK ENGLISH "NOT WELL"/"NOT AT ALL"	26	158	75	259
SPEAK OTHER LANGUAGE:				
SPEAK ENGLISH "VERY WELL"	55	458	197	710
SPEAK ENGLISH "WELL"	0	127	63	190
SPEAK ENGLISH "NOT WELL"/"NOT AT ALL"	10	76	37	123

P30 AGE, LANGUAGE SPOKEN AT HOME, AND LINGUISTIC ISOLATION
(UNIVERSE: PERSONS 5 YEARS AND OVER IN HOUSEHOLDS)

	AGE				
	5 - 13	14 - 17	18 - 64	65 +	TOTAL
SPEAK ONLY ENGLISH	5,957	2,080	20,546	6,064	34,647
SPEAK SPANISH:					
LINGUISTICALLY ISOLATED	4,356	1,422	9,477	1,599	16,854
NOT LINGUIST. ISOLATED	8,760	4,757	27,647	2,397	43,561
SPEAK ASIAN OR PACIFIC ISLANDER LANGUAGE:					
LINGUISTICALLY ISOLATED	99	16	137	49	257
NOT LINGUIST. ISOLATED	88	54	484	138	764
SPEAK OTHER LANGUAGE:					
LINGUISTICALLY ISOLATED	6	4	77	43	130
NOT LINGUIST. ISOLATED	12	43	524	174	753

P29 HOUSEHOLD LANGUAGE AND LINGUISTIC ISOLATION
(UNIVERSE: HOUSEHOLDS)

ENGLISH	13,061
SPANISH:	
LINGUISTICALLY ISOLATED	5,530
NOT LINGUISTICALLY ISOLATED	13,272
ASIAN OR PACIFIC ISLANDER LANGUAGE:	
LINGUISTICALLY ISOLATED	82
NOT LINGUISTICALLY ISOLATED	300
OTHER LANGUAGE:	
LINGUISTICALLY ISOLATED	68
NOT LINGUISTICALLY ISOLATED	544

P31 LANGUAGE SPOKEN AT HOME
(UNIVERSE: PERSONS 5 YEARS AND OVER)

SPEAK ONLY ENGLISH	35,943
GERMAN	202
YIDDISH	0
OTHER WEST GERMANIC LANGUAGE	16
SCANDINAVIAN	12
GREEK	19
INDIC	111
ITALIAN	47
FRENCH OR FRENCH CREOLE	112
PORTUGUESE OR PORTUG. CREOLE	32
SPANISH OR SPANISH CREOLE	61,300
POLISH	6
RUSSIAN	18
SOUTH SLAVIC	0
OTHER SLAVIC LANGUAGE	18
OTHER INDO EUROPEAN LANGUAGE	58
ARABIC	27
TAGALOG	228
CHINESE	414
HUNGARIAN	0
JAPANESE	44
MON KHMER	40
KOREAN	261
NATIVE NO. AMERICAN LANGUAGE	325
VIETNAMESE	19
OTHER AND UNSPECIFIED	54

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Exhibit 5

STATE: CALIFORNIA COUNTY: IMPERIAL

P117/118. POVERTY STATUS IN 1989 BY SEX AND AGE
(UNIVERSE: PERSONS FOR WHOM POVERTY STATUS IS DETERMINED)

AGE	ABOVE POVERTY MALE	ABOVE POVERTY FEMALE	ABOVE POVERTY TOTAL	BELOW POVERTY MALE	%	BELOW POVERTY FEMALE	%	BELOW POVERTY TOTAL	%
0- 4	3,318	3,276	6,594	1,619	32.8%	1,603	32.9%	3,222	32.8%
5	712	689	1,401	401	36.0%	354	33.9%	755	35.0%
6-11	4,767	4,117	8,884	1,855	28.0%	2,049	33.2%	3,904	29.6%
12-17	4,481	4,318	8,799	1,874	29.5%	1,821	29.7%	3,695	29.6%
18-24	(	)	7,438	(		)		2,642	26.2%
25-34	(DETAIL BY SEX	)	12,690	(DETAIL BY SEX NOT		)		3,819	23.1%
35-44	(NOT AVAILABLE	)	11,728	(AVAILABLE SEE SUMMARY		)		2,867	19.6%
45-54	(SEE SUMMARY	)	7,960	(18 - 64 BELOW		)		1,545	16.3%
55-59	(18 - 64 BELOW	)	3,490	(		)		764	18.0%
60-64	(	)	3,681	(		)		765	17.2%
65-74	3,064	3,103	6,167	404	11.6%	536	14.7%	940	13.2%
75+	1,385	1,668	3,053	232	14.3%	367	18.0%	599	16.4%
0-17	13,278	12,400	25,678	5,749	30.2%	5,827	32.0%	11,576	31.1%
18-64	23,162	23,825	46,987	5,012	17.8%	7,390	23.7%	12,402	20.9%
65+	4,448	4,771	9,220	636	12.5%	903	15.9%	1,539	14.3%
TOTAL	40,889	40,996	81,885	11,397	21.8%	14,120	25.6%	25,517	23.8%

P106. PERSONS IN HOUSEHOLDS BY PUBLIC ASSISTANCE INCOME 1989 (UNIVERSE: PERSONS IN HOUSEHOLDS)

WITH PUBLIC ASSISTANCE:	
0 - 14	0
15 - 64	4,992
65 +	2,242
NO PUBLIC ASSISTANCE:	
0 - 14	31,344
15 - 64	60,105
65 +	8,222

P119/120. POVERTY STATUS IN 1989 BY RACE AND HISPANIC ORIGIN BY AGE (UNIVERSE: PERSONS FOR WHOM POVERTY STATUS IS DETERMINED

AGE	WHITE ABOVE POVERTY	WHITE BELOW POVERTY	WHITE % BELOW	BLACK ABOVE POVERTY	BLACK BELOW POVERTY	BLACK % BELOW	AMERICAN INDIAN ABOVE POVERTY	AMERICAN INDIAN BELOW POVERTY	AMERICAN INDIAN % BELOW
0 - 4	4,228	1,964	31.7%	180	81	31.0%	110	124	53.0%
5	879	468	34.7%	5	34	87.2%	22	23	51.1%
6 - 11	5,877	2,539	30.2%	252	99	28.2%	125	99	44.2%
12 - 17	5,542	2,216	28.6%	165	68	29.2%	115	99	46.3%
18 - 64	32,137	7,953	19.8%	1,005	376	27.2%	598	350	36.9%
65 - 74	4,959	675	12.0%	206	27	11.6%	66	33	33.3%
75 +	2,449	423	14.7%	108	53	32.9%	23	7	23.3%
TOTAL	56,071	16,238	22.5%	1,921	738	27.8%	1,059	735	41.0%

AGE	ASIAN & PAC ISL ABOVE POVERTY	ASIAN & PAC ISL BELOW POVERTY	ASIAN & PAC ISL % BELOW	OTHER RACE ABOVE POVERTY	OTHER RACE BELOW POVERTY	OTHER RACE % BELOW	HISPANIC ORIGIN ABOVE POVERTY	HISPANIC ORIGIN BELOW POVERTY	HISPANIC ORIGIN % BELOW
0 - 4	155	33	17.6%	1,921	1,020	34.7%	4,656	2,735	37.0%
5	48	0	0.0%	447	230	34.0%	975	653	40.1%
6 - 11	147	58	28.1%	2,483	1,109	30.9%	6,219	3,350	35.0%
12 - 17	172	41	19.2%	2,805	1,271	31.2%	6,372	3,375	34.6%
18 - 64	1,054	109	9.4%	12,193	3,614	22.9%	28,178	9,780	25.8%
65 - 74	90	6	6.3%	846	199	19.0%	2,273	557	19.7%
75 +	180	18	9.1%	293	98	25.1%	982	209	17.5%
TOTAL	1,846	265	12.6%	20,988	7,541	26.4%	49,655	20,659	29.4%

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Exhibit T(a)

STATE: CALIFORNIA COUNTY: IMPERIAL

P122. POVERTY STATUS IN 1989 BY AGE BY HOUSEHOLD TYPE AND RELATIONSHIP
(UNIVERSE: PERSONS FOR WHOM POVERTY STATUS IS DETERMINED)

	15-64		65-74		75+	
	ABOVE POVERTY	BELOW POVERTY	ABOVE POVERTY	BELOW POVERTY	ABOVE POVERTY	BELOW POVERTY
IN MARRIED-COUPLE FAMILY	58,241	12,777	4,101	460	1,544	169
IN OTHER FAMILY:						
MALE HOUSEHOLDER, NO WIFE PRESENT	2,626	1,257	162	31	84	17
FEMALE HOUSEHOLDER, NO HUSBAND PRESENT	7,677	7,666	395	70	294	70
UNRELATED INDIVIDUALS:						
IN FAMILY HOUSEHOLDS	697	789	3	0	4	1
IN NONFAMILY HOUSEHOLDS:						
HOUSEHOLDER:						
LIVING ALONE	2,252	724	1,246	218	1,045	310
NOT LIVING ALONE	522	129	73	26	30	0
NONRELATIVES	432	357	55	30	23	3
IN GROUP QUARTERS	218	279	132	105	29	29

P121. RATIO OF INCOME IN 1989 TO POVERTY LEVEL (UNIVERSE: PERSONS FOR WHOM POVERTY STATUS IS DETERMINED)

	PERSONS	CUMULATIVE PERCENT
UNDER .50	8,819	8.2%
.50 TO .74	6,976	14.7%
.75 TO .99	9,722	23.8%
1.00 TO 1.24	9,748	32.8%
1.25 TO 1.49	9,297	41.5%
1.50 TO 1.74	7,476	48.5%
1.75 TO 1.84	2,483	50.8%
1.85 TO 1.99	3,665	54.2%
2.00 AND OVER	49,216	100.0%
TOTAL	107,402	

P127. POVERTY STATUS IN 1989 BY AGE OF HOUSEHOLDER BY HOUSEHOLD TYPE
(UNIVERSE: HOUSEHOLDS)

	AGE OF HOUSEHOLDER					
	15-64		65-74		75+	
	ABOVE POVERTY	BELOW POVERTY	ABOVE POVERTY	BELOW POVERTY	ABOVE POVERTY	BELOW POVERTY
MARRIED-COUPLE FAMILY	14,394	2,600	2,257	282	828	93
OTHER FAMILY:						
MALE HOUSEHOLDER, NO WIFE PRESENT	781	322	105	31	47	10
FEMALE HOUSEHOLDER, NO HUSBAND PRESENT	1,938	2,027	264	47	198	58
NONFAMILY HOUSEHOLDS:						
HOUSEHOLDER:						
LIVING ALONE	2,252	724	1,246	218	1,045	310
NOT LIVING ALONE	522	129	73	26	30	0

P126. POVERTY STATUS IN 1989 BY FAMILY TYPE AND AGE OF CHILDREN
(UNIVERSE: RELATED CHILDREN UNDER 18 YEARS)

	ABOVE POVERTY	BELOW POVERTY
IN MARRIED-COUPLE FAMILY:		
0 - 4 YEARS	5,676	1,624
5 YEARS	1,190	387
6 - 17 YEARS	14,822	4,144
IN OTHER FAMILY:		
MALE HOUSEHOLDER, NO SPOUSE:		
0 - 4 YEARS	314	209
5 YEARS	82	22
6 - 17 YEARS	649	455
FEMALE HOUSEHOLDER, NO SPOUSE:		
0 - 4 YEARS	604	1,389
5 YEARS	129	346
6 - 17 YEARS	2,188	2,877

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EXHIBIT T (b)

STATE: CALIFORNIA COUNTY: IMPERIAL

P123/124/125. POVERTY STATUS IN 1989 BY RACE AND HISPANIC ORIGIN OF HOUSEHOLDER, FAMILY TYPE AND PRESENCE AND AGE OF CHILDREN
(UNIVERSE: FAMILIES)

	TOTAL			WHITE			BLACK			AMER IN, ESK, AL		
	ABOVE POVERTY	BELOW POVERTY	% BELOW	ABOVE POVERTY	BELOW POVERTY	% BELOW	ABOVE POVERTY	BELOW POVERTY	% BELOW	ABOVE POVERTY	BELOW POVERTY	% BELOW
MARRIED-COUPLE FAMILY:												
WITH RELATED CHILDREN <18:												
UNDER 5 YEARS ONLY	1,705	350	17.0%	1,161	226	16.3%	63	3	4.5%	19	0	0.0%
5 - 17 YEARS ONLY	5,842	1,276	17.9%	3,880	837	17.7%	100	36	26.5%	80	22	21.6%
UNDER 5 & 5-17 YRS	2,750	825	23.1%	1,733	482	21.8%	44	13	22.8%	40	16	28.6%
NO RELATED CHILD <18	7,182	524	6.8%	5,822	368	5.9%	139	16	10.3%	51	8	13.6%
OTHER FAMILY:												
MALE HOUSEHOLDER, NO SPOUSE:												
WITH RELATED CHILDREN <18:												
UNDER 5 YEARS ONLY	109	55	33.5%	55	42	43.3%	7	0	0.0%	0	8	100.0%
5 - 17 YEARS ONLY	318	114	26.4%	237	59	19.9%	13	6	31.6%	26	6	18.8%
UNDER 5 & 5-17 YRS	126	107	45.9%	73	73	50.0%	0	7	100.0%	0	0	0.0%
NO RELATED CHILD <18	380	87	18.6%	265	57	17.7%	11	5	31.3%	5	2	28.6%
FEMALE HOUSEHOLDER, NO SPOUSE:												
WITH RELATED CHILDREN <18:												
UNDER 5 YEARS ONLY	233	252	52.0%	151	173	53.4%	13	0	0.0%	5	9	64.3%
5 - 17 YEARS ONLY	1,064	942	47.0%	745	608	44.9%	60	25	29.4%	4	34	89.5%
UNDER 5 & 5-17 YRS	257	754	74.6%	141	488	77.6%	6	10	62.5%	6	29	82.9%
NO RELATED CHILD <18	846	184	17.9%	616	107	14.8%	33	45	57.7%	17	8	32.0%

	ASIAN & PAC ISL			OTHER RACE			HISPANIC ORIGIN		
	ABOVE POVERTY	BELOW POVERTY	% BELOW	ABOVE POVERTY	BELOW POVERTY	% BELOW	ABOVE POVERTY	BELOW POVERTY	% BELOW
MARRIED COUPLE FAMILY:									
WITH RELATED CHILDREN <18									
UNDER 5 YEARS ONLY	48	5	9.4%	414	116	21.9%	1,003	294	22.7%
5 - 17 YEARS ONLY	203	5	2.4%	1,579	376	19.2%	3,657	1,112	23.3%
UNDER 5 & 5-17 YRS	82	16	16.3%	851	298	25.9%	1,923	761	28.4%
NO RELATED CHILD <18	131	10	7.1%	1,039	122	10.5%	2,535	274	9.8%
OTHER FAMILY:									
MALE HOUSEHOLDER, NO SPOUSE:									
WITH RELATED CHILDREN <18:									
UNDER 5 YEARS ONLY	4	0	0.0%	43	5	10.4%	78	37	32.2%
5 - 17 YEARS ONLY	9	0	0.0%	33	43	56.6%	152	102	40.2%
UNDER 5 & 5-17 YRS	0	0	0.0%	53	27	33.8%	119	86	42.0%
NO RELATED CHILD <18	30	0	0.0%	69	23	25.0%	173	50	22.4%
FEMALE HOUSEHOLDER, NO SPOUSE:									
WITH RELATED CHILDREN <18:									
UNDER 5 YEARS ONLY	4	2	33.3%	60	68	53.1%	176	183	51.0%
5 - 17 YEARS ONLY	5	0	0.0%	250	275	52.4%	666	752	53.0%
UNDER 5 & 5-17 YRS	0	7	100.0%	104	220	67.9%	192	633	76.7%
NO RELATED CHILD <18	12	0	0.0%	168	24	12.5%	489	108	18.1%

Imp Co. Demographics 1994
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Exhibit T(C)

COUNTY / CITY	TOTAL POPULATION 1-1-92	TOTAL POPULATION 1-1-93	PERCENT CHANGE
FRESNO (CONT.)			
UNINCORPORATED	164,100	168,400	2.6
GLENN	25,850	26,300	1.7
ORLAND	5,400	5,475	1.4
WILLOWS	6,175	6,325	2.4
UNINCORPORATED	14,300	14,500	1.4
HUMBOLDT	123,900	126,500	2.1
ARCATA	15,750	16,000	1.6
BLUE LAKE	1,280	1,300	1.6
EUREKA	27,900	28,250	1.3
FERNDALE	1,370	1,400	2.2
FORTUNA	9,100	9,325	2.5
RIO DELL	3,060	3,040	-0.7
TRINIDAD	360	370	2.8
UNINCORPORATED	65,000	66,800	2.8
IMPERIAL	118,900	131,000	10.2
BRAWLEY	20,350	21,450	5.4
CALEXICO	20,260	22,250	9.8
CALIPATRIA	2,920	6,825	133.7
EL CENTRO	34,950	36,450	4.3
HOLTVILLE	5,125	5,475	6.8
IMPERIAL	4,550	5,550	22.0
WESTMORLAND	1,480	1,510	2.0
UNINCORPORATED	29,300	31,350	7.0
INYO	18,400	18,800	2.2
BISHOP	3,460	3,530	2.0
UNINCORPORATED	14,950	15,250	2.0
KERN	587,100	603,000	2.7
ARVIN	9,600	10,150	5.7
BAKERSFIELD	189,200	195,800	3.5
CALIFORNIA CITY	7,975	8,600	7.8
DELANO	24,900	25,800	3.6
MARICOPA	1,240	1,260	1.6
MCFARLAND	7,450	7,575	1.7
RIDGECREST	29,500	29,950	1.5
SHAFTER	10,200	10,700	4.9
TAFT	6,575	6,625	0.8
TEHACHAPI	6,550	6,700	2.3
WASCO	17,100	17,450	2.0
UNINCORPORATED	276,900	282,400	2.0
KINGS	107,800	111,200	3.2
KINGS (CONT.)			
AVENAL	11,100	11,550	4.1
CORCORAN	14,150	14,750	4.2
HANFORD	33,550	34,900	4.0
LEMOORE	14,400	14,900	3.5
UNINCORPORATED	34,650	35,100	1.3
LAKE	54,200	55,600	2.6
CLEARLAKE	12,250	12,450	1.6
LAKEPORT	4,590	4,670	1.7
UNINCORPORATED	37,300	38,550	3.4
LASSEN	28,550	28,900	1.2
SUSANVILLE	11,750	12,650	7.7
UNINCORPORATED	16,800	16,300	-3.0
LOS ANGELES	9,074,400	9,158,400	0.9
AGOURA HILLS	20,800	20,950	0.7
ALHAMBRA	84,400	84,900	0.6
ARCADIA	48,750	49,200	0.9
ARTESIA	15,750	15,900	1.0
AVALON	3,010	3,040	1.0
AZUSA	41,800	42,300	1.2
BALDWIN PARK	70,500	71,200	1.0
BELL	35,350	35,650	0.8
BELLFLOWER	62,900	63,400	0.8
BELL GARDENS	43,300	43,750	1.0
BEVERLY HILLS	32,200	32,350	0.5
BRADBURY	830	850	2.4
BURBANK	96,700	97,200	0.5
CALABASAS	17,000	17,350	2.1
CARSON	84,400	85,000	0.7
CERRITOS	53,500	53,800	0.6
CLAREMONT	32,550	32,700	0.5
COMMERCE	12,300	12,250	-0.4
COMPTON	91,600	91,400	-0.2
COVINA	43,400	43,900	1.2
CUDAHY	23,150	23,250	0.4
CULVER CITY	38,900	39,300	1.0
DIAMOND BAR	53,700	54,300	1.1
DOWNEY	92,500	93,500	1.1
DUARTE	20,950	21,100	0.7
EL MONTE	109,700	110,500	0.7
EL SEGUNDO	15,300	15,550	1.6
GARDENA	52,700	53,500	1.5
GLENDALE	184,200	186,700	1.4
GLENDORA	48,550	49,100	1.1

Imp. Co. Demographics Packet FY94
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Exhibit U

STATE: CALIFORNIA COUNTY: IMPERIAL

P1/2/3/6. PERSONS
(UNIVERSE: PERSONS)

TOTAL	109,303
UNWEIGHTED SAMPLE COUNT	17,820
100-PERCENT COUNT OF PERSONS	109,303
PERCENT OF PERSONS IN SAMPLE	16.3%
URBAN	83,559
PERCENT OF TOTAL	76.4%
INSIDE URBANIZED AREA	440
OUTSIDE URBANIZED AREA	83,119
RURAL	25,744
PERCENT OF TOTAL	23.6%
RURAL FARM	1,030
RURAL NONFARM	24,714

P8/9 RACE
(UNIVERSE: PERSONS)

WHITE	73,620	
BLACK	2,837	
AMERICAN INDIAN, ESKIMO OR ALEUT	1,846	
AMERICAN INDIAN		1,820
ESKIMO		23
ALEUT		3
ASIAN OR PAC ISL	2,171	
CHINESE		588
FILIPINO		641
JAPANESE		106
ASIAN INDIAN		237
KOREAN		396
VIETNAMESE		15
CAMBODIAN		62
HMONG		0
LAOTIAN		0
THAI		10
OTHER ASIAN		46
POLYNESIAN:		
HAWAIIAN		52
SAMOAN		0
TONGAN		0
OTHER POLYNESIAN		0
MICRONESIAN		
GUAMANIAN		16
OTHER MICRONESIAN		0
MELANESIAN		0
OTHER PACIFIC ISL		0
OTHER RACE	28,829	

P10/11 PERSONS OF HISPANIC ORIGIN
(UNIVERSE: PERSONS OF HISPANIC ORIGIN)

HISPANIC ORIGIN	71,365
MEXICAN	69,499
PUERTO RICAN	208
CUBAN	40
OTHER HISPANIC:	
DOMINICAN	17
CENTRAL AMERICAN:	
GUATEMALAN	37
HONDURAN	8
NICARAGUAN	54
PANAMANIAN	15
SALVADORAN	189
OTHER CENTRAL AMERICAN	11
SOUTH AMERICAN:	
COLOMBIAN	38
ECUADORIAN	0
PERUVIAN	31
OTHER SOUTH AMERICAN	115
OTHER HISPANIC	1,103

P64 SEX BY AGE BY VETERAN STATUS
(UNIVERSE: PERSONS 16 YEARS AND OVER)

	MALE	FEMALE
16 - 64 YEARS		
IN ARMED FORCES	426	52
CIVILIAN:		
VETERAN	5,514	159
NONVETERAN	25,179	31,250
65 + YEARS:		
IN ARMED FORCES	0	0
CIVILIAN:		
VETERAN	2,210	91
NONVETERAN	3,011	5,799
TOTAL		
IN ARMED FORCES	426	52
CIVILIAN:		
VETERAN	7,724	250
NONVETERAN	28,190	37,049

P12 HISPANIC ORIGIN BY RACE
(UNIVERSE: PERSONS)

NOT OF HISPANIC ORIGIN:	
WHITE	32,016
BLACK	2,573
AMERICAN INDIAN, ESKIMO, OR ALEUT	1,527
ASIAN OR PACIFIC ISLANDER	1,752
OTHER RACE	70
HISPANIC ORIGIN:	
WHITE	41,604
BLACK	264
AMERICAN INDIAN, ESKIMO, OR ALEUT	319
ASIAN OR PACIFIC ISLANDER	419
OTHER RACE	28,759

P65. PERIOD OF MILITARY SERVICE
(UNIVERSE: CIVILIAN VETERANS 16 YEARS AND OVER)

TOTAL	7,974
MAY 1975 OR LATER ONLY	
SEPT 1980 OR LATER ONLY:	
W/LESS THAN 2 YEARS SERVICE	35
W/2 YEARS OR MORE SERVICE	389
MAY 1975 - AUG 1980 ONLY	312
BOTH, MAY 1975 - AUG 1980 AND SEPT 1980 OR LATER	136
VIETNAM ERA	
NO KOREAN NOR WW II	2,173
KOREAN CONFLICT, NO WW II	155
KOREAN CONFLICT AND WW II	67
FEB 1955 TO JULY 1964 ONLY	713
KOREAN CONFLICT:	
NO VIETNAM NOR WWII	1,052
WITH WW II, NO VIETNAM	200
WW II, NO KOREAN/VIETNAM	2,677
WW I	11
OTHER SERVICE	54

Imp. Co Demographics 1994
(CT)

Exhibit V

COUNTY CITY	TOTAL POPULATION 1-1-93	TOTAL POPULATION 1-1-94	PERCENT CHANGE
FRESNO (CONT.)			
UNINCORPORATED	169,000	171,700	1.6
GLENN	26,250	26,500	1.0
ORLAND	5,450	5,575	2.3
WILLOWS	6,300	6,325	0.4
UNINCORPORATED	14,450	14,600	1.0
HUMBOLDT	125,700	126,900	1.0
ARCATA	15,900	15,850	-0.3
BLUE LAKE	1,290	1,280	-0.8
EUREKA	28,100	28,050	-0.2
FERNDALE	1,390	1,360	-2.2
FORTUNA	9,275	9,475	2.2
RIO DELL	3,020	3,020	0.0
TRINIDAD	370	370	0.0
UNINCORPORATED	66,300	67,500	1.8
IMPERIAL	129,300	135,700	4.9
BRAWLEY	21,200	21,750	2.6
CALEXICO	21,950	23,700	8.0
CALIPATRIA	6,800	7,225	6.3
EL CENTRO	35,950	36,700	2.1
HOLTVILLE	5,400	5,575	3.2
IMPERIAL	5,475	6,125	11.9
WESTMORLAND	1,590	1,600	0.6
UNINCORPORATED	30,950	33,000	6.6
INYO	18,650	18,900	1.3
BISHOP	3,510	3,580	2.0
UNINCORPORATED	15,150	15,300	1.0
KERN	601,700	617,000	2.5
ARVIN	10,100	10,550	4.5
BAKERSFIELD	195,200	201,800	3.4
CALIFORNIA CITY	8,575	8,750	2.0
DELANO	25,700	29,950	16.5
MARICOPA	1,260	1,270	0.8
MCFARLAND	7,550	7,625	1.0
RIDGECREST	29,800	29,900	0.3
SHAFTER	10,950	11,150	1.8
TAFT	6,600	6,650	0.8
TEHACHAPI	6,675	6,775	1.5
WASCO	17,400	17,800	2.3
UNINCORPORATED	281,900	284,800	1.0
KINGS	111,400	114,200	2.5

COUNTY CITY	TOTAL POPULATION 1-1-93	TOTAL POPULATION 1-1-94	PERCENT CHANGE
KINGS (CONT.)			
AVENAL	11,550	12,050	4.3
CORCORAN	14,750	14,900	1.0
HANFORD	34,500	35,850	3.9
LEMOORE	14,950	15,300	2.3
UNINCORPORATED	35,600	36,150	1.5
LAKE	55,400	56,500	2.0
CLEARLAKE	12,350	12,400	0.4
LAKEPORT	4,650	4,720	1.5
UNINCORPORATED	38,350	39,350	2.6
LASSEN	29,200	29,350	0.5
SUSANVILLE	12,550	12,500	-0.4
UNINCORPORATED	16,650	16,800	0.9
LOS ANGELES	9,158,800	9,230,600	0.8
AGOURA HILLS	20,950	21,000	0.2
ALHAMBRA	84,900	86,300	1.6
ARCADIA	49,200	49,800	1.2
ARTESIA	15,900	16,100	1.3
AVALON	3,040	3,170	4.3
AZUSA	42,300	42,900	1.4
BALDWIN PARK	71,200	72,000	1.1
BELL	35,650	35,800	0.4
BELLFLOWER	63,400	63,900	0.8
BELL GARDENS	43,800	43,700	-0.2
BEVERLY HILLS	32,350	32,600	0.8
BRADBURY	850	850	0.0
BURBANK	97,200	98,700	1.5
CALABASAS	17,350	17,700	2.0
CARSON	85,000	86,300	1.5
CERRITOS	53,900	54,200	0.6
CLAREMONT	32,700	33,200	1.5
COMMERCE	12,250	12,400	1.2
COMPTON	91,400	91,600	0.2
COVINA	43,900	44,450	1.3
CUDAHY	23,250	23,750	2.2
CULVER CITY	39,300	39,450	0.4
DIAMOND BAR	54,300	54,500	0.4
DOWNEY	93,500	94,800	1.4
DUARTE	21,100	21,300	0.9
EL MONTE	110,500	111,000	0.5
EL SEGUNDO	15,550	15,650	0.6
GARDENA	53,500	53,900	0.7
GLENDALE	186,700	190,200	1.9
GLENDORA	49,100	49,850	1.5

Imp. Co. Demographics

Exhibit Y

STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY
8001 NATIONAL DRIVE, P.O. BOX 8913
LITTLE ROCK, ARKANSAS 72219-8913
PHONE: (501) 562-7444
FAX: (501) 562-4632

January 25, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 905 077 391

Imre J. Szekelyhidi, Jr.
Western Waste Industries
100 I-45, LP Tower, Suite 210
Conroe, Texas 77301

Dear Mr. Szekelyhidi:

This is to inform you that your application for the construction of Phase 4 of the facility in Miller County, Arkansas, now operated as the Hoot Land Reclamation Facility under Permit Numbers S-0095 and S-0146, is hereby denied. Application materials are being returned to you under separate cover.

The denial of this application is based upon the authority vested in me by Act 454 of 1991 codified at Ark. Code Ann. 8-1-106 et seq. by the General Assembly of Arkansas. In my review of the operational performance of your company under the permits referenced above, I have determined that those operations have resulted in the consistent and repeated exposure of dangerous conditions to the environment and to the public's health and safety. That review has also caused me to question the reliability, competence, and responsibility of your company and associated individuals and contractors.

Exhibit W

A Notice of Violation which incoporates the many violations and penalties over the last several months is being prepared and will be forwarded to you in the near future. This Notice of Violation will serve to provide the specifics of reasons for my determination.

You are further informed that this decision may be appealed to the Pollution Control and Ecology Commission under the requirements shown in Regulation Number 8.

Sincerely,

Randall Mathis

Randall Mathis
Director

cc: Allan Gates
Kosti Shirvanian, Western Waste
Judge Hubert Easley, Miller County
Mayor Danny Gray, Texarkana, AR
Marvin Fincher, Director SW AR PDD

fb/115

ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

IN THE MATTER OF:
WESTERN WASTE INDUSTRIES, INC.
PERMIT NO. 0147-S
CLASS I SANITARY LANDFILL

LIS 93- 031

NOTICE OF VIOLATION

Notice is hereby given that the Director of the Arkansas Department of Pollution Control and Ecology ("ADPC&E") has determined that there are reasonable grounds to believe that Western Waste Industries, Inc. ("Western Waste") has committed the following violations of the Arkansas Solid Waste Management Code ("Code"); the Arkansas Solid Waste Management Act ("Solid Waste Act"), Act 237 of 1971, as amended, A.C.A. §8-6-201 et seq.; the Arkansas Water and Air Pollution Control Act, Act 472 of 1949, as amended, codified at A.C.A. §8-4-101 et seq. (the "Air Act") and the regulation promulgated thereunder, in particular those which incorporate the National Emission Standards for Hazardous Air Pollutants ("NESHAP") (40 CFR Part 61, Subpart M), the Arkansas Asbestos Abatement Regulations, and all other applicable rules and regulations.

ALLEGATIONS AND FINDINGS OF FACT

1. Western Waste is a registered corporation with the State of Arkansas doing business as a solid waste collection and disposal company.

2. Western Waste operates a sanitary landfill in Miller County under Permit No. 0146-S. Inspections at the landfill since October of 1991 indicate the landfill has been cited for numerous and recurring violations of the Act, Air Act, Code and permit. (This NOV is primarily formatted in chronological order of the inspection dates, beginning October 24, 1991, with an assessed penalty for each violation specified. Penalty assessments for violations of the Solid Waste Act increase by increments of Five Hundred Dollars ($500) each time a violation recurs.) Violations of the Air Act follow the solid waste violations chronologically.

3. On October 7, 1991, Western Waste was issued a Notice of Violation, LIS 91-176 (attached as Exhibit "A") for the improper disposal and release of asbestos dust as stipulated in the Allegations and Findings of Fact, paragraphs 6 and 7 of the Notice of Violation.

4. On November 18, 1991, Western Waste was issued an amended Notice of Violation, LIS 91-176 (attached as Exhibit "B") for the improper disposal of Methyl Ethyl Ketone and Lead contaminated wastes and for an unpermitted discharge as stipulated in the Allegations and Findings of Fact, paragraph 7 of the Notice of Violation.

5. On February 28, 1992, and March 5, 1992, consultants for Western Waste analyzed leachate water samples from the leachate collection system at the Western Waste Landfill and submitted the results to ADPC&E. Analyses performed on the leachate samples indicate the

leachate contains constituents exceeding regulatory levels established by the Toxicity Characteristic Rule published by the Environmental Protection Agency March 29, 1990.

6. On October 24, 1991, an inspection by ADPC&E revealed the following violations:

(A) Surface water diversion was not as designed. Surface water drainage in the NE corner of the landfill flows across a road and off site. This is a violation of the Code, Chapter Four, Section XII, A. 4., condition No. 1. of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Five Hundred Dollars ($500).

(B) Surface water control system was not functional. Sedimentation pond is not completely functional as runoff is diverted away from the pond. This is a violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1. of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Five Hundred Dollars ($500).

(C) Facility did not follow provisions for disposal of special materials as detailed in the Code, Appendix "A". Liquid waste observed being disposed of in a pit. This is a violation of the Code, Chapter Four, Section XII., B. 7.(j), and condition No. 1, of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(D) Unsatisfactory final cover. Phase II portion of the landfill did not have final cover applied or vegetation in violation of

the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1, of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(E) Unsatisfactory maintenance of cover. Erosion was noted on the north side slopes of the landfill in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1, of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

7. On December 3, 1991, an inspection by ADPC&E revealed the following violations:

(A) Surface water control system was not functional. Surface water runoff was diverted away from sedimentation pond in violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of One Thousand Dollars ($1,000).

(B) Unsatisfactory final cover. Phase II portion of the landfill did not have final cover applied or vegetation in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(C) Facility did not follow provisions for disposal of special materials. Liquid waste observed being disposed of in a pit. This is a violation of the Code, Chapter Four, Section XII., B. 7.(j), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(D) Unsatisfactory maintenance of cover. Erosion was noted on the side slopes of the landfill in Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

8. On January 7, 1992, an inspection by ADPC&E revealed the following violations:

(A) Surface water diversion was not as designed. Surface water drainage in the SW corner of the landfill flows across a road off the site bypassing the pond. This is a violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of One Thousand Dollars ($1,000).

(B) Surface water control system was not functional. Sedimentation pond is not completely functional as runoff is diverted away from the pond. This is a violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit ARG1600013. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(C) Unsatisfactory final cover. Phase II portion of the fill did not have final cover applied or vegetation in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(D) Facility did not follow provisions for disposal of special materials. Liquid waste observed being disposed of in a pit. This is a violation of the Code, Chapter Four, Section XII., B. 7.(j), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(E) Unsatisfactory maintenance of cover. Erosion was noted on the north side slopes of the landfill in Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

9. On February 4, 1992, an inspection by ADPC&E revealed the following violations:

(A) Surface water diversion was not as designed. Surface water drainage in the SW portion of Phase II drains across a road bypassing the pond in violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S and NPDES Permit No. ARG1600013. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(B) Surface water control system was not functional. Sedimentation pond is not completely functional as runoff is diverted away from the pond. This is a violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Two Thousand Dollars ($2,000).

(C) Unsatisfactory final cover. Phase II portion of the landfill did not have final cover applied in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(D) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in previous days cell in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(E) Facility did not follow provisions for disposal of special materials. Liquid waste disposed and left standing in pit. This is a violation of the Code, Chapter Four, Section XII., B. 7.(j), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(F) Unsatisfactory maintenance of cover. Erosion was noted on the north and west slopes of Phase II of the landfill in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(G) Leachate leaving site. Leachate was noted in Phases I, II, III and was flowing off the site via the slopes of Phase II, in such a matter as to cause or be likely to cause water or air pollution in violation of A.C.A. §8-6-205, and in violation of the Code, Chapter Four, Section XII., A. 3. & 4. and B. 5.,

and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

10. On June 9, 10, and 11, 1992, Western Waste conducted a monitor well sampling event at the landfill. ADPC&E was on site to split samples with Western Waste. Analyses of the samples collected by ADPC&E, show positive detections of volatile organic compounds in monitor wells 2, 6, 7, and 8.

11. The Department was on site July 28 through 31, 1992 and August 3 through 5, 1992, to collect samples from additional wells that had been installed since the last sampling event. Analyses of the samples collected by ADPC&E show positive detections of volatile organic compounds in a number of wells.

12. On March 9, 1992, an inspection by ADPC&E revealed the following violations:

(A) Facility does not follow procedures for sampling special materials in violation of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(B) Surface water diversion was not as designed. Surface water runoff was not contained in the work area by a berm and was being pumped from Phase III to Phase IV. This is a violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Two Thousand Dollars ($2,000).

(C) Unsatisfactory final cover in Phase I and II in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(D) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4. and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(E) Vegetative cover was inadequate and not maintained in Phase I and Phase II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(F) Stressed and dead vegetation was noted in Phase I in violation of the Code, Chapter Four, Section XII., B. 7(g) and (h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(G) Erosion was noted on closed areas of Phase II in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(H) Ponding of water was noted in closed areas of Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(I) Evidence of settling on completed areas of Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(h),

and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(J) Vectors were noted on site in violation of the Code, Chapter Four, Section XII., A. 10.(e) and B. 7.(d), and condition No. 1 of Permit No. 0146- S. Penalty assessment of Five Hundred Dollars ($500).

13. On April 17, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory final cover of Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(B) Leachate leaving site. Leachate was noted in Phase III oozing out of the fill in such a manner as to cause or be likely to cause water or air pollution in violation of A.C.A. §8-6-205 and in violation of the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(C) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(D) Vegetative cover was inadequate and not maintained in Phase II in violation of the Code, Chapter Four, Section XII., A.

10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(E) Stressed and dead vegetation was noted in Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(g) and (h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(F) Erosion was noted on closed areas in Phase II in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(G) Cracking of final cover soils in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(H) Evidence of settling on completed areas in Phase I was noted in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(I) Vectors were noted on site in violation of A.C.A §8-6-205, in violation of the Code, Chapter Four, Section XII., A. 10.(e) and B. 7(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

14. On May 27, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory final cover in Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(B) Facility does not follow procedures for disposal of special materials in violation of the Code, Chapter Four, Section XII., B. 7.(j), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(C) Leachate on site. Leachate was noted in Phase III oozing out of the fill in such a manner as to cause or to be likely to cause water or air pollution in violation of A.C.A. §8-6-205, the Code, Chapter Four, Section XII., B. 5. and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(D) Sediment accumulation was noted in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(E) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(F) Stressed and dead vegetation was noted in Phase I and II in violation of the Code, Chapter Four, Section XII., B. 7.(g)

and (h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(G) Erosion was noted on closed areas in Phase II in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(H) Cracking of final cover soils in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(I) Evidence of settling on completed areas in Phase I was noted in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

15. On June 23, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase II and III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(B) Dumping of waste into water in violation of the Code, Chapter Four, Section XII., A. 10.(g)3., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(C) Leachate on site. Leachate was noted in Phase II and oozing out of Phase III of the fill in such as manner as to cause or to be likely to cause water or air pollution in violation of A.C.A. §8-6-205, and in violation of the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(D) Sediment accumulation was noted in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(E) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(F) Stressed and dead vegetation was noted in Phase I and II in violation of the Code, Chapter Four, Section XII., B. 7.(g) and (h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(G) Erosion was noted on Phases I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(H) Heavy litter on site in violation of the Code, Chapter Four Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

16. On July 20, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase II and III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(B) Dumping of waste into water in violation of the Code, Chapter Four, Section XII., A. 10.(g)3., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(C) Leachate on site. Leachate was noted in Phase III oozing out of the fill in such a manner as to cause or be likely to cause water or air pollution in violation of A.C.A. §8-6-205, the Code, Chapter Four Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(D) Sediment accumulation was noted in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(E) Vegetative cover was inadequate and not maintained in Phase II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(F) Erosion of final cover soil was noted in Phase II and III in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(G) Cracking of final cover soils was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(H) Evidence of settling on completed areas in Phase I was noted in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(I) Vectors were noted on site in violation of the Code, Chapter Four, Section XII., A. 10.(e) and B. 7.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(J) Heavy litter on site in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

17. On August 26, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of

Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(B) Dumping of waste into water in violation of the Code, Chapter Four, Section XII., A. 10.(g)3., and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(C) Leachate on site. Leachate was noted in Phase II of the fill as to cause or be likely to cause water or air pollution in violation of A.C.A. §8-6-205, in violation of the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(D) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(E) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(F) Erosion of final cover soil was noted in Phases I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(G) Cracking of final cover soils was noted in Phases I, II, and III in violation of the Code, Chapter Four, Section XII., A.

10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(H) Heavy litter on site in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

18. On September 23, 1992, an inspection by ADPC&E revealed the following violations:

(A) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(B) Leachate on site. Leachate was noted in Phase II and III as to cause or to be likely to cause water or air pollution in violation of A.C.A. §8-6-205, in violation of the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(C) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(D) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII.,

A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(E) Erosion of final cover soil was noted in Phases I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(F) Cracking of final cover soils was noted in Phases I, II, and III in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(G) Evidence of ponding water in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Hundred Dollars ($500).

(H) Vectors were noted on site in violation of the Code, Chapter Four, Section XII., A. 10.(e) and B. 7.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(I) Heavy litter on site in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

19. On October 15, 1992, an inspection by ADPC&E revealed the following violations:

(A) Sedimentation and surface water diversion was not functional in Phase II in violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(B) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(C) Special materials "asbestos" was noted being mishandled in violation of the Code, Appendix "A" Special Materials Requirements and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

(D) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Dollars ($4,000).

(E) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Dollars ($4,000).

(F) Erosion of final cover soil was noted in Phases I in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Dollars ($4,000).

(G) Cracking of final cover soils was noted in Phases I in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

(H) Evidence of ponding water in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Dollars ($1,000).

(I) Heavy litter on site in Phase II and III in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Five Hundred Dollars ($2,500).

20. On November 13, 1992, an inspection by ADPC&E revealed the following violations:

(A) Sedimentation and surface water diversion was not functional in Phase II in violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Three Thousand Dollars ($3,000).

(B) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(C) Leachate on site. Leachate was noted in Phase II as to cause or to be likely to cause water or air pollution in violation of A.C.A §8-6-205, the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Dollars ($4,000).

(D) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Five Hundred Dollars ($4,500).

(E) Vegetative cover was inadequate and not maintained in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Five Hundred Dollars ($4,500).

(F) Erosion of final cover soil was noted in Phase I in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Five Hundred Dollars ($4,500).

(G) Cracking of final cover soils was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 10.(i) and B. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(H) Evidence of ponding water in Phase II in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of One Thousand Five Hundred Dollars ($1,500).

(I) Heavy litter on site in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Dollars ($3,000).

21. On December 29, 1992, an inspection by ADPC&E revealed the following violations:

(A) Sedimentation and surface water diversion was not functional in Phase II and III in violation of the Code, Chapter Four, Section XII., A. 4., condition No. 1 of Permit No. 0146-S, and NPDES Permit No. ARG1600013. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

(B) Unsatisfactory cover. Daily cover was unsatisfactory due to exposed waste noted in Phase I, II, and III in violation of the Code, Chapter Four, Section XII., B. 7.(e), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Dollars ($4,000).

(C) Leachate on site. Leachate was noted in Phase II as to cause or be likely to cause water or air pollution in violation of A.C.A. §8-6-205, in violation of the Code, Chapter Four, Section XII., B. 5., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Four Thousand Five Hundred Dollars ($4,500).

(D) Sediment accumulation was noted in Phase I in violation of the Code, Chapter Four, Section XII., A. 4., and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Thousand Dollars ($5,000).

(E) Vegetative cover was inadequate and not maintained in Phase I and II in violation of the Code, Chapter Four, Section XII., A. 10.(h) and B. 7.(g), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Thousand Dollars ($5,000).

(F) Erosion of final cover soil was noted in Phase III in violation of the Code, Chapter Four, Section XII., B. 7.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Five Thousand Dollars ($5,000).

(G) Evidence of ponding water in Phases I, II, and III in violation of the Code, Chapter Four, Section XII., A. 10.(h), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Two Thousand Dollars ($2,000).

(H) Heavy litter on site in violation of the Code, Chapter Four, Section XII., A. 10.(d), and condition No. 1 of Permit No. 0146-S. Penalty assessment of Three Thousand Five Hundred Dollars ($3,500).

The following paragraphs contain violations of the Air Act and applicable laws and regulations:

22. ADPC&E personnel conducted an inspection of an excavation project at the landfill on November 2 and November 19, 1992. The following violations for handling asbestos-containing materials were found:

(A) Western Waste violated Section 5, paragraph 5.2 of the Arkansas Asbestos Abatement Regulations by causing or allowing

the maintenance, handling, transporting, storage or disposal of asbestos-containing materials in a manner which allows, or may allow, unnecessary amounts of asbestos fibers to become airborne.

(B) Western Waste violated 40 CFR Part 61, paragraph 61.154(f) by failing to maintain, until closure, records of the location, depth and area and quantity in cubic meters (cubic yards) of asbestos-containing waste materials within the disposal site on a map or diagram of the disposal area.

(C) Western Waste violated 40 CFR Part 61, paragraph 61.154(j) on November 2 and November 19, 1992, by failing to notify the Administrator in writing at least forty-five days prior to the excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of a new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notice.

ORDER AND CIVIL PENALTY ASSESSMENT

1. In accordance with Allegations and Findings of Fact, paragraph 3 above, Western Waste shall pay Twenty Thousand Dollars ($20,000) as a civil penalty for the violations noted in the Notice of

Violation, LIS 91-176, Allegations and Findings of Fact, paragraphs 6 and 7.

2. In accordance with Allegations and Findings of Fact, paragraph 4 above, Western Waste shall pay Thirty Thousand Dollars ($30,000) as a civil penalty for the violations noted in the Amended Notice of Violation, LIS 91-176, Allegations and Findings of Fact, paragraphs 3, 4, 5, 6 and 7.

3. In accordance with Allegations and Findings of Fact, paragraph 5 above, Western Waste shall re-sample the leachate from the leachate collection system with all due haste. Arrangements shall be made with ADPC&E Hazardous Waste Division and Solid Waste Division to be on site to split samples. Western Waste shall also present to ADPC&E a plan, to be approved by the Department, for disposal of all leachate from the underdrain system and extraction wells within 60 days of the execution date of this Order.

4. Western Waste shall pay the sum of Two Thousand Five Hundred Dollars ($2,500) as a civil penalty for the violations noted in Paragraph 6 of the Allegations and Findings of Fact.

5. Western Waste shall pay the sum of Four Thousand Dollars ($4,000) as a civil penalty for the violations noted in Paragraph 7 of the Allegations and Findings of Fact.

6. Western Waste shall pay the sum of Seven Thousand Dollars ($7,000) as a civil penalty for the violations noted in Paragraph 8 of the Allegations and Findings of Fact.

7. Western Waste shall pay the sum of Ten Thousand Five Hundred Dollars ($10,500) as a civil penalty for the violations noted in Paragraph 9 of the Allegations and Findings of Fact.

8. Western Waste shall pay the sum of Eight Thousand Five Hundred Dollars ($8,500) as a civil penalty for the violations noted in Paragraph 12 of the Allegations and Findings of Fact.

9. Western Waste shall pay the sum of Ten Thousand Five Hundred Dollars ($10,500) as a civil penalty for the violations noted in Paragraph 13 of the Allegations and Findings of Fact.

10. Western Waste shall pay the sum of Fourteen Thousand Five Hundred Dollars ($14,500) as a civil penalty for the violations noted in Paragraph 14 of the Allegations and Findings of Fact.

11. Western Waste shall pay the sum of Twelve Thousand Dollars ($12,000) as a civil penalty for the violations noted in Paragraph 15 of the Allegations and Findings of Fact.

12. Western Waste shall pay the sum of Eighteen Thousand Five Hundred Dollars ($18,500) as a civil penalty for the violations noted in Paragraph 16 of the Allegations and Findings of Fact.

13. Western Waste shall pay the sum of Nineteen Thousand Dollars ($19,000) as a civil penalty for the violations noted in Paragraph 17 of the Allegations and Findings of Fact.

14. Western Waste shall pay the sum of Twenty-three Thousand Five Hundred Dollars ($23,500) as a civil penalty for the violations noted in Paragraph 18 of the Allegations and Findings of Fact.

15. Western Waste shall pay the sum of Twenty-six Thousand Five Hundred Dollars ($26,500) as a civil penalty for the violations noted in Paragraph 19 of the Allegations and Findings of Fact.

16. Western Waste shall pay the sum of Thirty-two Thousand Dollars ($32,000) as a civil penalty for the violations noted in Paragraph 20 of the Allegations and Findings of Fact.

17. Western Waste shall pay the sum of Thirty-two Thousand Five Hundred Dollars ($32,500) as a civil penalty for the violations noted in Paragraph 21 of the Allegations and Findings of Fact.

18. Therefore, Western Waste shall pay the total sum of Two Hundred Seventy-one Thousand Five Hundred Dollars ($271,500) as a civil

penalty for all of the Solid Waste Act and Code violations noted in this Notice of Violation and Allegations and Findings of Fact.

19. Western Waste shall immediately cease the receipt and disposal of Industrial Waste as defined by 40 CFR 258.1, special waste, including but not limited to asbestos containing materials, or any waste other than household or commercial waste as defined by 40 CFR 258.1, from outside the four-county area near Texarkana.

20. Western Waste shall immediately cease the receipt of any liquid or semi-liquid solid wastes in accordance with 40 CFR 258.28.

21. Western Waste shall install two additional well clusters. One well cluster must be located on the north side of Phase II while a second well cluster must be located on the west side of Phase II. A well must be screened across the water table surface. A second well at the same location must be screened just below the intervening lignitic clay in the upper portion of the deep aquifer.

22. Western Waste will implement closure work that has been pre-approved by ADPC&E on Phase II immediately and shall commence closure of Phase III when the final plans have been submitted and approved by the Department. Closure activity will be completed prior to July 1, 1993, and Western Waste shall cease receiving all waste by June 1, 1993.

23. Western Waste shall retain the services of a land surveyor registered in the state of Arkansas to determine the existing elevations and certify the accuracy of the elevations on Phases Phase II and III of the landfill. Any discrepancies in the existing elevations will be compared to the permitted final grades and noted on a plan sheet. All portions of the fill which are above the permitted final elevations must be delineated on the plan sheet and the overfill volumes quantified and submitted to the Department.

24. For the violations of the Air Act, NESHAP, and the Arkansas Asbestos Abatement Regulations, Western Waste is hereby assessed the following civil penalties pursuant to A.C.A § 8-4-103 and Regulation Number 7: Civil Penalties:

a. Four Thousand Five Hundred Dollars ($4,500) for the violations of Section 5, paragraph 5.2 of the Arkansas Asbestos Abatement Regulations as specified in paragraph 22(A) of the Allegations and Findings of Fact.

b. Four Thousand Five Hundred Dollars ($4,500) for the violations of 40 CFR Part 61, paragraph 61.154(f) as specified in paragraph 22(B) of the Allegations and Findings of Fact.

c. Four Thousand Five Hundred Dollars ($4,500) for the violation of 40 CFR Part 61, paragraph 61.154(j) on November 2, 1992, as

specified in paragraph 22(C) of the Allegations and Findings of Fact.

d. Seven Thousand Dollars ($7,000) for the violation of 40 CFR Part 61, paragraph 61.154(j) on November 19, 1992, as specified in paragraph 22(C) of the Allegations and Findings of Fact.

25. Payment of the above assessed Air Act and applicable regulation penalties, in aggregate Twenty Thousand Five Hundred Dollars ($20,500), shall be made payable as described below within thirty (30) days of the effective date hereof.

Western Waste shall pay the total sum of Two Hundred Ninety-two Thousand Dollars ($292,000) as a civil penalty for all of the violations noted in this Notice of Violation and Allegations and Findings of Fact. Of the total penalty amount, Two Hundred Nineteen Thousand Dollars ($219,000) shall be made payable to the Arkansas Department of Pollution Control and Ecology within thirty (30) days of the effective date hereof. The remaining Seventy-three Thousand Dollars ($73,000) shall be placed in an escrow account naming the Union Water Corporation as beneficiary and the proceeds shall be distributed to the Union Water Corporation to form and maintain a water improvement district.

THEREFORE, TAKE NOTICE THAT:

Western Waste Industries, Inc., must file a written response to this Notice of Violation in accordance with Commission Regulation No. 8, with the Secretary, Arkansas Commission on Pollution Control and Ecology, 8001 National Drive, P.O. Box 8913, Little Rock, Arkansas 77219-8913, within twenty (20) days of receipt of this Notice of Violation, or these allegations will be deemed proven. Upon filing a written response within the time provided, Western Waste Industries, Inc., will be entitled to an adjudicatory hearing upon the allegations and other matters stated in this Notice of Violation. If no timely response is received, the Director may issue an Administrative Order confirming the allegations and Findings of Fact, assessing civil penalties and ordering the actions stated herein, and other matters stated in this Notice of Violation.

SO ORDERED THIS 10 day of February, 1993.

Randall Mathis

Randall Mathis
Director

ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

IN THE MATTER OF:
WESTERN WASTE INDUSTRIES, INC.
PERMIT NO. 0146-S
CLASS I SANITARY LANDFILL

LIS 91-176

NOTICE OF VIOLATION

Notice is hereby given that the Director of the Arkansas Department of Pollution Control and Ecology ("ADPC&E") has determined that there are reasonable grounds to believe that Western Waste Industries ("Western Waste") has committed the following violations of the Arkansas Solid Waste Management Code ("Code"); the Arkansas Solid Waste Management Act ("Act"), Act 237 of 1971, as amended; A.C.A §8-6-201 et seq. and all other applicable rules and regulations.

ALLEGATIONS AND FINDINGS OF FACT

1. Western Waste is a registered corporation with the State of Arkansas doing business as a solid waste collection and disposal company.

2. Western Waste operates a sanitary landfill in Miller County under Permit No. 0146-S.

EXHIBIT
A

3. On September 19 and 20, 1991, ADPC&E inspectors visited the landfill to conduct an investigation and take samples as authorized under A.C.A. §8-6-207.

4. A Miller County Solid Waste Administrator and Environmental Officer was also present at both the September 19 and 20 inspections.

5. On September 19, ADPC&E inspectors observed hauling and disposal of special materials at the landfill, specifically friable asbestos material as listed in Appendix "A" of the Code.

6. The friable asbestos material was not disposed of in accordance with the Code. Inspectors observed trucks unloading the material on the ground at the site and compacting the material in violation of the Code.

7. The inspectors observed visible dust released from the compacted containers of friable asbestos on site in violation of the Code.

ORDER AND CIVIL PENALTY ASSESSMENT

1. Western Waste shall immediately take appropriate measures to ensure the proper handling of special materials accepted at the site, herein asbestos, in accordance with Appendix "A" of

the Code, including but not limited to proper training and instruction of employees.

2. Western Waste shall pay to ADPC&E the sum of TEN THOUSAND DOLLARS ($10,000) for the improper handling and disposal of friable asbestos materials as stipulated in Allegations and Findings of Fact #6 above. Payment shall be due within 30 days of this Order.

3. Western Waste shall pay to ADPC&E the sum of TEN THOUSAND DOLLARS ($10,000) for the release of friable asbestos dust as stipulated in Allegations and Findings of Fact #7 above. Payment shall be due within 30 days of entry of this Order.

4. Payment of the above assessed penalties, in aggregate TWENTY THOUSAND DOLLARS ($20,000), shall be mailed to the attention of Laura L. Mack, Staff Attorney, payable to the Department of Pollution Control and Ecology within thirty (30) days of the effective date hereof.

THEREFORE TAKE NOTICE THAT:

Western Waste must file a written response to this Notice of Violation in accordance with Commission Regulation No. 8, with the Secretary, Arkansas Pollution Control and Ecology Commission, 8001 National Drive, P.O. Box 8913, Little Rock, Arkansas 72219-8913, within twenty (20) days of receipt of this Notice of Violation, or

these allegations will be deemed proven. Upon filing a written response within the time provided, Western Waste will be entitled to an adjudicatory hearing upon the allegations and other matters stated in this Notice of Violation. If no timely response is received, the Director may issue an Administrative Order confirming the allegations and Findings of Fact, assessing civil penalties and ordering the actions stated herein, and other matters stated in this Notice of Violation.

Randall Mathis
Director

10/7/91
Date

ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

IN THE MATTER OF:
WESTERN WASTE INDUSTRIES, INC.
PERMIT NO. 0146-S
CLASS I SANITARY LANDFILL

LIS 91-176

AMENDED NOTICE OF VIOLATION

Notice is hereby given that subsequent to the Notice of Violation issued on October 7, 1991, the Director of the Arkansas Department of Pollution Control and Ecology ("ADPC&E") has determined that there are reasonable grounds to believe that Western Waste Industries ("Western Waste") has committed the following additional violations of the Arkansas Solid Waste Management Code ("Code"); the Arkansas Solid Waste Management Act ("Act"), Act 237 of 1971, as amended, A.C.A §8-6-201 et seq.; the Arkansas Hazardous Waste Management Act, A.C.A.§8-7-201 et seq.; and all other applicable rules and regulations. This amended Notice of Violation incorporates all of the Allegations and Findings of Fact in the original Notice of Violation of October 7, 1991.

AMENDED ALLEGATIONS AND FINDINGS OF FACT

1. September 19, 1991, ADPC&E inspectors visited the landfill and took samples as authorized under A.C.A. §8-6-207.

EXHIBIT
B

2. The samples were sent to the ADPC&E laboratory for analysis.

3. Analysis of samples taken from ticket number 51723-TEX indicated lead levels above the regulatory limit as set forth in 40 C.F.R. 261.24.

4. Western Waste did not obtain written approval from the ADPC&E for the disposal of materials contaminated with lead as a special waste as required in Section XII B. of the Solid Waste Management Code.

5. Analysis of samples taken from ticket number 51726-TEX indicated methyl ethyl ketone (MEK) levels well above the regulatory limit as set forth in 40 C.F.R. 261.24.

6. Western Waste did not obtain written approval from the ADPC&E for the disposal of materials contaminated with MEK as a special waste as required in Section XII B. of the Solid Waste Management Code.

7. On November 12, 1991, ADPC&E engineers observed an illegal discharge into a drainageway near the scale house. The pipe was discharging at a rate of approximately 200 gallons per minute. A sample of this discharge was taken and analysis performed. The analysis indicated 580 NTU. The Water Quality Standard for Days Creek is 21 NTU. A report of this investigation is attached hereto, incorporated herein and

marked Exhibit "A". This is a violation of Ark. Code Annotated §8-4-101 et seq. and Regulation No. 6, Section 6.

ORDER AND CIVIL PENALTY ASSESSMENT

1. Western Waste shall immediately take appropriate measures to ensure the proper handling of special materials accepted at the site in accordance with Section XII B. of the Solid Waste Management Code.

2. In order to facilitate compliance with #1 above, Western Waste shall henceforth file an Industrial/Special Waste Disposal Request Form with the ADPC&E prior to the acceptance of special wastes. A copy of the form is attached as Exhibit "B".

3. Western Waste shall pay to ADPC&E the sum of TEN THOUSAND DOLLARS ($10,000) for the improper disposal of lead contaminated wastes as stipulated in Allegations and Findings of Facts #3 and #4 above.

4. Western Waste shall pay to ADPC&E the sum of TEN THOUSAND DOLLARS ($10,000) for the improper disposal of MEK contaminated wastes as stipulated in Allegations and Findings of Facts #5 and #6 above.

5. Western Waste shall pay to ADPC&E the sum of TEN THOUSAND DOLLARS ($10,000) for the unpermitted discharge as stipulated in Allegations and Findings of Fact #7 above.

6. Payment of the above assessed penalties, in aggregate THIRTY THOUSAND DOLLARS ($30,000), shall be mailed to the attention of Laura L. Mack, Staff Attorney, payable to the Department of Pollution Control and Ecology within thirty (30) days of the effective date hereof.

THEREFORE TAKE NOTICE THAT:

Western Waste must file a written response to this Amended Notice of Violation in accordance with Commission Regulation No. 8, with the Secretary, Arkansas Pollution Control and Ecology Commission, 8001 National Drive, P. O. Box 8913, Little Rock, Arkansas 72219-8913, within twenty (20) days of receipt of this Amended Notice of Violation, or these allegations will be deemed proven. Upon filing a written response within the time provided, Western Waste will be entitled to an adjudicatory hearing upon the allegations and other matters stated in this Amended Notice of Violation. If no timely response is received, the Director may issue an Administrative Order confirming the allegations and Findings of Fact, assessing civil penalties and ordering the

actions stated herein, and other matters stated in this Amended Notice of Violation.

Randall Mathis

Randall Mathis
Director

11/18/91

Date

Laurence R. Charpied
and
Donna J. Charpied
P.O. Box 321/45-200 Kaiser Road
Desert Center, Ca. 92239
(619) 392-4722

Petitioners
In Pro Per

FILED
KENNETH E. MARTONE
Clerk of the Superior Court

MAY - 6 1994

By: J. PETERSON, Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF SAN DIEGO

LAURENCE R. CHARPIED, an individual
DONNA J. CHARPIED, an individual

Petitioners,

vs.

COUNTY OF RIVERSIDE, AND BOARD OF SUPERVISORS OF RIVERSIDE COUNTY,

Respondents,

MINE RECLAMATION CORPORATION, a corporation

KAISER STEEL RESOURCES, INC., a corporation

KAISER STEEL EAGLE MOUNTAIN, INC., a corporation

BROWNING-FERRIS INDUSTRIES, INC., a corporation

and DOES 1 through 100 inclusive,

Real Parties In Interest

CASE No. 663033

PETITIONER'S REPLY BRIEF TO RESPONDENTS COUNTY OF RIVERSIDE, ET. AL., AND REAL PARTIES IN INTEREST IN OPPOSITION OF LAURENCE AND DONNA CHARPIED PETITION

Independent Calendar
Judge: Judith McConnell

Department: 38
Trial Date: June 20, 1994
Motion Cutoff : None

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Exhibit X

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[Petitioners incorporate in their reply brief the entire contents of Reply Brief, San Diego Superior Court Case No. 662907, as though fully set forth therein.]

INTRODUCTION: FACTUAL AND PROCEDURAL BACKGROUND

I. THE PARTIES : Council for the Respondents and Real Parties In Interest ("RPI") assertion that petitioners challenge the EIR simply because we do not agree has no merit ! We have attended every public hearing concerning this proposal, and presented written and oral comments, that were ignored, in some cases. Over 10,000 signatures on letters and petitions opposing the project were entered into the public record. After nine marathon hearings, the Riverside County Planning Commission voted 4 to 1 AGAINST the project. The County's residents do not want a larger dump, and demand and deserve better management of existing dumps. Further, the project's approval was finalized on election day, November 3, 1992, per Supervisor Patricia "Corky" Larson's desire, refer to AR 20298. Supervisor Bob Buster won District 1 seat, and opposes the project, Mr. Buster replaced Walter Abraham who voted for the project. Had the vote been delayed until after the election, the project would be dead, (Exhibit A, transcript of November 30, 1993 regular Board of Supervisors ("BOS") meeting). We are appalled by the BOS and Mine Reclamation Corporation ("MRC") abusing the concept of Development Agreement 47 to promote themselves and stifle the opposition. The Development Agreement 47 ("DA47") is not valid until the developers own title to the land, AR6064. Vol 13 The developers have no standing in securing DA47, and the BOS have no jurisdiction entering into DA47 without proof of title ownership. Over 16 months have passed since the final approval by the BOS, and the developer(s) are locked into zoning regulations and other County constraints at 1992 levels. If it takes ten years to obtain title to the subject lands, if ever, construction can take place without the benefit of imposing any changes the County may place on landfills, to make them safer. Also, if DA47 is not in effect until the land is acquired, how can MRC apply

for a $200 million dollar loan from the California Pollution Control Financing Authority, AR 10361-10390. Among other things, this document misrepresents land ownership. Petitioners are also appellants challenging the Bureau Of Land Management's ("BLM") approval of the land exchange and EIS with the Interior Board of Land Appeals ("IBLA"). A Petition To Stay the Decision was granted by IBLA on January 4, 1994, until the 16 appeals are resolved, see Exhibit B. The Administrative Judges state, "The relative harm of denying the stay unfairly disadvantages appellants and they may suffer immediate and irreparable harm if the stay is not granted...thus public interest favors granting the stay. Finally, there are serious, substantial, difficult, and doubtful questions about the land exchange. Such questions are fair grounds for litigation. In these circumstances, the standard concerning likelihood of success on these merits is satisfied".

We moved to Desert Center approximately 13 years ago to farm jojoba. We have 10 acres of land with 2½ acres comprising a research/mother block where we have selected cultivars conducive to production, in an attempt to domesticate the plant from the wild, to domestication thereby providing a renewable resource and a cash viable crop. The United States Congress has placed jojoba on the Strategic Critical Materials list, and promotes the research and development of the plant, AR4860. We must have an adequate water supply to meet our goals in the development of this plant's potential. Indeed, the respondents saying "Petitioners use CEQA as a 'sword' to advance their agends..." (Page 1 respondents brief), is without merit. Perhaps the respondents and RPI should lobby legislation to have the regulations written in Latin to avoid public awareness thereby reducing the likelihood of the public's ability to challenge profoundly ludicrous projects, such as this one.

II. PURPOSE OF THE PROJECT: Respondents assert on page 5, that Californians make "a significant contribution to a Statewide shortage of environmentally sound landfill disposal space". They refer to Robert Nelson's declaration

for support of this fantasy. They state in the EIR that Los Angeles will be experiencing a county wide landfill space shortage by 1993, AR 9959. This has not happened in Los Angeles, see Exhibit C, in fact there is a landfill space glut. Robert Nelson's assertion that Riverside County will nee new landfills in as little as 1.5 to 4 years is contrary to the report he submitted to the BOS October 26, 1993, see Exhibit D. The need for this project is a myth, at best. The "need" lies solely in the developer's pocketbooks.

On pages 5 & 6 of respondent's brief they talk of the advanced technology to be implemented at Eagle Mountain. They forgot to mention that when first proposed the dump design didn't include a composite liner. It was not until U.S. EPA Subtitle D Regulations came into effect did MRC (and their partner, Browning Ferris Industries, "BFI"), propose the technology now considered. Moreover, Subtitle D regulations apply to dump expansions and new dump proposals throughout the United States, thus, the Eagle Mountain proposal is no differnt than any expansion or new proposals, with regard to environmental safeguards.

The respondents fail to show any substantial evidence that by closing existing dumps environmental degradtion will cease. Construction of a mega dump in no way remediates environmental hazardous posed by existing dumps.

III. DISCUSSION OF PETITIONER'S VIEW OF PERMITTING PROCESS

A. COUNTY OF RIVERSIDE ABUSED ITS DISCRETION Will discuss later in brief.

B. U.S. FISH & WILDLIFE SERVICE SECTION 7 BIOLOGICAL OPINION,, BLM, NEPA, AND LAND EXCHANGE APPROVAL : MRC/BFI's feeble attempt to categorize the lands they offer in exchange for lands to develop the dump as environmentally valuable habitat for the Desert Tortoise is misleading. The tracts of land they offer will all be bisected by a newly reactivated rail line, AR 9921. VOL 21 This will effectively increase the tortoise mortality rate, as well as physically separate the population of existing tortoise which will impact reproduction. As required by Section 7 of the Endangered Species Act (ESA/16 USC §1563), BLM must consult with the US F&WS regarding the potential impact to Federally listed Desert

Tortoise and Desert Pupfish, see Exhibit E, page 4, Desert Tortoise. This was not included in the EIR/EIS approved by the County and BLM, rendering the EIR/EIS insufficient by lacking required documents. Exhibit E, page 4, clearly defines the goals of BLM and the US F&WS with regards to endangered species,: "Draft Recovery Plan for the Desert Tortoise issued in April 1993 requires that Federal land managing jurisdiction prepare and implement plans for recovery and delisting of Mojave populations of the Desert Tortoise...three target areas include, the Chuckwall Bench and Joshua Tree National Monument...". One of the many documents lodged with the respondent's brief and not included in the AR is document #9, US F&WS Section 7 Opinion that states, in part, at page 1, "...project is not likely to jeopardize the continued existence of the desert tortoise or pupfish...". "Not likely" to jeopardize is a far cry from recovery (increase in population) and delisting. It is no wonder why this document was excluded from public scrutiny in the EIR/EIS.

C. PERMITS OF REGIONAL WATER QUALITY CONTROL BOARD, CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD, U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT AND THE MEMORANDUM OF UNDERSTANDING ("MOU") WITH BLM, NPS, U.S. F&WS etc.

Gary Johson's declaration as to the possible issuance of permits and signing of an MOU are simply more of MRC/BFI's unsubstantiated theories, that seem to be common with the promotion of their project. For instance, the need for dump space in Southern California by 1993, AR 9959, simply is not true, see Exhibit C.

IV. JUDICIAL REVIEW : Apparently respondents and RPI are confused by the facts. We are not contesting the validity of the EIR based on the conclusions drawn by MRC/BFI and its volumes of superfluous information. We allege that the conclusions drawn when using the information supplied in the EIR cannot be substantiated. That is why the document is inadequate.

A court will uphold the local agency's decision in certifying the EIR as adequate if the agency's decision is supported by substantial evidence (Laurel

Heights I supra, 47 Cal. 3d. at 419). Substantial evidence is defined as, "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion even though other conclusions might also be reached". (CEQA Guidelines § 15384 (a), Sacramento Old City v. City Council (1991) 229 Cal. App. 3d, 1011, 1019 [citing Laurel Heights 1])

CEQA also requires that the agency adopt feasible mitigation measures, (PRC § 21002). The Court will not invalidate the EIR based on alleged inadequacy of mitigation measures if the agency's decision was reasonable and is supported by substantial evidence. The following discussions will demonstrate that many conclusions in the EIR are not reasonable and do not have enough relevant information to draw such conclusions.

V. DISCUSSION OF RESPONDENT'S ARGUMENTS

A. IMPACTS TO AND FROM THE TOWNSITE'S REASONABLE FORESEEABLE GROWTH OMITTED FROM THE EIR. Respondent's brief at page 20 says that the growth will be limited to 580 persons, and at page 24, "[i]n the future, it may be expected that the community of Eagle Mountain will experience growth, both from the influx of employees and families caused by the landfill and [the return to custody facility] and from general growth in the region, AR 1273". MRC/BFI completely omits the impacts from other development(s) contemplated Actually, the townsite now offers no services except for some refurbished houses, electricity, non-potable water, an outdated sewage system which has already degraded the groundwater, and all the old commercial buildings being utilized by the existing prison. The Eagle Mountain School's water well shows choliform bacteria present, rendering this water well unusable, Exhibit F. How will the increase in population effect this already antiquated sewage system ?

AR 7545 states that recyclables will be stored at the site, and at AR 10009 it states containers are not water tight. There is no discussion in the EIR that provides the reader with expected impacts from transporting the garbage/

recyclables in leaky containers, as well as the impacts from storing recyclables in leaky containers, at the site. Excluding ancillary businesses such as new stores, smelters for recyclables, etc. render this document inadequate. Deputy County Counsel, Jay Vickers states, in part, "...when we refer to 'Employment benefits' not only were we considering the landfill operation itself, but under the Specific Plan and the Development Agreement itself, there are a number of ancillary businesses that can be committed to this operatio, and we anticipate that those types of businesses will locate there and generate work" AR 6116. More deception really, because the respondents are quick to say lots of money can be made at Eagle Mountain, but to analyze the impacts of the businesses contemplated at the town are not considered. How can they have it both ways ? The goal of the EIR is to ensure that the ultimate decision is made with the knowledge of the likely consequences and that the public has the information needed to evaluate that decision. (Al Larson Boat Shop v Board of Harbor Commissioners (1993) 18 Cal. App 4th 729 & 748). see also, Rio Vista Farm Bureau v. County of Solano 1992 5 Cal. App. 4th 351, 369.

B. MATERIALS RECOVERY FACILITIES ("MRF'S"): Apparently MRC/BFI's reasons for not including the MRF's potential impacts is that they're not yet built. They go on to say that the County is not required to speculate about the use of any existing MRF or transfer station. It is interesting to note here that there is a substantial difference between a transfer station and a MRF; a MRF accepts waste and removes the recyclables, household hazardous waste etc., before it's final destination. A transfer station merely accepts waste then transports it to the ultimate location without the benefit of removing recyclables etc. But we know where one will be for sure; "...which required that a waste transfer and recycling facility be provided at the landfill for local residents", AR 6090. Vol 13 The impacts from the transfer station and MRF were excluded from the EIR. Next we see, "...all waste entering the landfill will be required to be processed for materials recovery and recycling away from the

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landfill" AR 2492. No MRF's, no waste to Eagle Mountain ! Why does MRC/BFI claim not to know where these facilities are going to be when the Draft EIR identifies 5 solid waste facilities for possible use as a MRF? AR 4793.3. The reason is MRC/BFI are trying to hide the total impacts caused by this trash by rail proposal. The California Integrated Waste Management Board ("CIWMB") commented on the issue of MRF's, but the comments were ignored: AR 18883, "If the project requires material recovery facilities, then by law, documentation must account for impacts of all reasonably foreseeable components of the project". AR 10016, "The final document should have included an assessment of potential impacts associated with each transfer station, its role as an intermediate storage facility and this project".

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C. SIGNIFICANT NEGATIVE IMPACT TO AQUIFER: Once again the respondents dance around a critical issue. The mitigation provided for the overdraft condition will have negligible results, AR 7557. This does not in any way, shape, or form, satisfy the criteria for mitigation (40 CFR §1508.2(a-e)). Do the applicants have legal water rights? This is one issue before the IBLA right now. MRC/BFI need the land exchange for the rights of water, since only private property is figured into the water rights "equation". Nonetheless, the respondents did not provide any answers to petitioner's legitimate concerns of the harm caused to us and our community once our water well pumps drop below the water table, just so MRC/BFI can make money from trash.

Page 24 of petitioner's Opening Brief questions the suitability of the fine tailings to be used for the dump's liner system. AR4652 is the analytical results of fine tailings of August 22, 1991, Exhibit G is analysis of fine tailings samples obtained by the Department of Toxic Substance Control ("DTSC") on February 11, 1994. Exhibit G also includes the American Toxic Substance Disease Registry ("ATSDR") Profile of common levels of heavy metals in soil. It seems when MRC/BFI collected their samples in 1991, they collected them from what is known as the clarification ponds. The samples collected by DTSC

came from what is referred to as the slurry/settling pond. The difference is the latter was in use throughout the years of mining, while the former was in use for 5 or 6 years. The arsenic, for instance is almost ten times higher in the slurry/settling pond. The difference in the samples place questions of credibility of the fine tailings as a liner or cover. Furthermore, not all heavy metals were analyzed in the document that is suppose to provide the decision makers with enough knowledge to come to a well informed opinion. The high values in the analysis warrants further investigation, before approval is given to implement the tailings as a groundwater PROTECTION, it seems that the fine tailings will be a groundwater INFECTION !

D. **INADEQUATE MITIGATION :** 40 CFR 1502.2(g): Environmental statements shall serve as the means of assessing the environmental impacts of a proposed agency action, rather than justifying decisions already made. 40 CFR 1508.20(a-e) defines mitigation: (a) Avoiding impacts altogether by not taking a certain action; (b) Minimizing impacts by limiting the degree or magnitude of the action; (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the operation; (e) Compensating for the impact by replacing or providing substitute resources and environments. These five definitions are the minimum by which all mitigation should be measured.

Dr. Boarman, a BLM biologist (Desert Tortoise Team), knows that the proposed mitigation for ravens won't work. AR 17704 VOL 35 Dr. Boarman says, "It is my contention that the proposed project will increase raven populations and that no reliable mitigations are proposed to reduce this impact on tortoises and other native wildlife". The mitigation proposed for ravens is the same as for other desert nuisance birds to protect the Eagle Mountain scrub jay - AR 0520. VOL I If the mitigation(s) don't work for one, how can they work for any ?!? MRC/BFI will initially monitor ravens before instituting their "mitigation program",

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AR 18178, but MONITORING DOES NOT ITSELF CONSTITUTE MITIGATION. Dr. Boarman states at AR 17699, "I am quite concerned about the long-range impacts of rail traffic on population cohesion. So little is known about the costs, benefits, and effectiveness of barriers, culverts, and railroads, that I do not believe we can adequately assess the impacts or the mitigations". Here again we see MRC/BFI offering a pipe dream which in no way meets any criteria for mitigation as defined by NEPA, described above. The train noise and vibration impacts are portrayed as insignificant, yet Dr. Boarman states at AR 17695: "What is important is that the entire bandwidth of greatest sensitivity is covered by train noise that is very alarming... I cannot support the statement that 'circumstantial evidence strongly suggests that noise impacts to tortoise from train activity is not significant'". He goes on to say, "I cannot agree that tortoises are not affected by vibration" AR 17696. The reality here is that significant negative impacts to the tortoise were not mitigated. On the issue of noise and vibration on the tortoise, MRC/BFI simply state that there is no problem, but offer no evidence to support this bald assertion. In fact, substantial evidence in the AR suggest that the noise and vibration would in fact have adverse effects on the tortoise, as is shown by the comments Dr. Stebbins entered into the record, AR 18849-55. Dr. Stebbins has studied the biological resources in the California desert for over 50 years, including intensive investigation of vertebrates at Joshua Tree National Monument. MRC/BFI have no intentions of mitigating the adverse environmental impacts of its proposed operations. Instead, they have consistently argued throughout the approval process either (1) that its operations will have no "significant impacts" on the environment, or (2) that monitoring the impacts of its operations will somehow be sufficient.

MRC/BFI proposes to mitigate adverse effects on air quality by simply monitoring those effects or by simply concluding that there will be no adverse effects. In addition,MRC/BFI disingenuously propose to use electric versions

of landfill equipment "wherever feasible", AR 0530 & 69938, or "alternative fuel technology", despite the fact that, by its own admission, "these mitigation measures are not feasible at this time", AR 2763. How can these be mitigation measures when they are "not feasible at this time" ? Indeed, the very notion that a private, profit-motivated corporation(s) such as MRC/BFI would voluntarily use expensive alternative technology and thereby reduce its potential profits, is absurd. AR 2708 addresses alternative fuels: "While alternative fuels may be used to comply with these regulations, they are not essential, nor do they provide any air quality benefits as compared with 'traditional' fuels used to satisfy the same regulation". MRC/BFI go on to say, "No quantifications of air quality benefits from the use of alternative fuels in landfill equipment is possible at the present time, because no alternative-fueled engines are available for the types of equipment expected to be used in the Eagle Mountain project". This is a joke. Their mitigation is to offer some futuristic pie-in-the-sky dream that is not even an attempt at mitigation. We see that MRC/BFI is very good at illusion. Take, for example, the impacts of their project on the Coachella Valley. Their contention is that "you've got a decrease in the precursors coming in from the South Coast air basin, which roughly affects the increase with rail traffic and truck traffic within the Coachella Valley", AR 6993.6. Yet MRC/BFI says, "Can you measure it? (the decrease),No". If you can't measure it then you can't claim that there will be an offset.

National Park Service ("NPS") comments to the final EIR: "However, the fact still remains that no data on biological resources were ever collected from within the Monument", AR 18203-06. With no data how can MRC/BFI claim there will be no impacts? Further, NPS asserts, "Based on additional visibility screening performed by Air Quality Division staff,NPS, we conclude that the project will result in visibility impairment within Joshua Tree National Monument", AR 18203. It is glaringly obvious that important impacts are not mitigated. In fact we are subjected to a misleading array of construed ideas whose

goal is to create an illusion that mitigation measures are incorporated into the project proposal.

Speaking of "illusion", has the Court ever wondered why there is no declaration from MRC's CEO/President, Rick Daniels, the "Master of Illusion"? It is because MRC/BFI do not want to remind the Court of the San Diego District Attorney, Edwin Miller's investigation of Waste Management, Inc., while Rick was attempting to get approval for the Gregory Canyon dump. Mr. Miller's investigation shows how Rick manipulates the media and decision makers, to obtain his desired results, AR 8483-8491. VOL 18

E. **SUPERVISORS ABUSE DISCRETION:** The supervisors abused their discretion by not keeping their promises to their constituents regarding a clean environmental report, AR 10402, as well as some supervisors having made a predetermined decision before the public comment and review period was over. In Resources Defense Fund v. Local Agency Formation Commission (1987) 191 Cal. App. 3d 886, 897-898, the Court held "the conventional 'harmless error' standard has no application when an agency has failed to proceed as required by CEQA. (Citation) Failure to comply with CEQA is necessarily prejudicial". In Rural Landowners Assocition v. City Council 143 Cal. App. 3d at p. 1023, the Court held that where failure to comply with the law results in a subversion of the purpose of CEQA by omitting information from the environmental review process, the error is prejudicial. The trial court may not exercise its independent judgement on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. The decision is for the discretion of the agency, and not the Courts. AR 6117 and 5665, VOL 13 VOL 12 Since this is a joint EIR/EIS, it is important we coordinate with BLM. The National Environmental Policy Act ("NEPA") is our basic national charter for protecting our environment. 40 CFR §1500.1(a),(b),(c), 1500.2(a-f), 1501.1(b), 1501.7(g), 1502.2(e,f,g), 1502.5, 1502.9(a,b), 1502.13(c), 1502.16(c,e), 1502.25 (a), 1503.1(1), 1503.4(5), 1505.1(c,d), 1506.5(c), 1507.2 (a,b,c), 1508.5,

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§1507.7, and 1508.20.

It is quite apparent that Supervisor Larson was actively supporting the project, prior to termination of the comment and review period, violating 40CFR 1502.2(g). Vol 32 AR 15839, letter to Mrs. Larson, states, in part, "Thank you for responding to my letter which listed the names of supporters for the Eagle Mountain Landfill. I also appreciate your advise for gathering future support". Is it Mrs. Larson's obligation/duty to educate proponents and rebuke opponents? Vol 33 AR 17733 letter from Larson to Charpieds, in part states, "My point is that I need to put you on notice that I cannot engage in writing back and forth". Vol 31 AR 15281, to another proponent, "In order for me to clearly know the wishes of the residents within the county, in particular, the Fourth District, it is important that I receive direct communication from as many residents as possible...". Vol 32 AR 15671-72, is a response to Mrs. Larson's letter to another opponent, it states, in part, "...I am surprised when you labeled your opposition ...'extremely misleading, using clever wording to give false innuendo'...It should be noted that 4/5 of your letter deal with the potential negative impacts and only 1/5 speaks briefly about the millions coming into the area, some label as 'mitigating' fees...How can you define the required clean-up of desert air caused by the diesel trains as an 'environmental positive' is this not clever wording?". Next we see a new tactic from Mrs. Larson to scare people into support, because if other pending proposals happen, we will get no benefits,but we'll get the trucks and trains. Vol 35 AR 17844 and Vol 36 18490, she says she had met with the Chairman of Imperial County BOS, and that they will "definitely" go ahead with two regional landfills that will bring truck and train traffic through Coachella. "This is yet another aspect in the ongoing study of feasibility of the project". Clearly, if Mrs. Larson knew this to be fact, the ongoing study, the EIR, should have included the environmental consequences of the other proposals, PRC § 21100(a); 42 USC 4332(2),(c)(iii), CEQA Guidelines 15126, and 40CFR §1502.16(d,e): Shall include discussion of the environmental

effects of alternatives, and energy requirements and conservation potential of various alternatives..." AR 2745, "Among the various remote rail haul sites considered, it is true that Eagle Mountain ranks among the highest in terms of transportation-related energy consumption and air emissions".

Now we will expand on the concept of a predetermined decision by illustrating the incestuous relationship with the decision makers of the proposal. AR 3486, Jean Carr, formerly Director of Marketing for MRC, worked for RECON, the firm who wrote the subject EIR/EIS, prior to her employment with MRC. Russell Kaldenberg,formerly the Area Manager, BLM Palm Springs Resource Area, also worked for RECON, see Exhibit H. AR 5655, Steve Nagle brought in to replace Marianne Wetzel as project planner, BLM. AR 15672, Robyn Nagle, Senior Assistant to Supervisor Larson is the lead person in Mrs. Larson's office for the project. Steve and Robyn are husband and wife. This seems to be a violation of 40 CFR § 1506.5(c); "It is the intent of these regulations that the contractor be chosen solely by the lead agency, or by the lead agency in cooperation with the cooperating agencies, or where appropriate by a cooperating agency to avoid any conflict of interest".

Further evidence of predetermined decision, AR 14910, "Recent disclosure that the Board of Supervisors has accepted $440,000 from the company proposing the Eagle Mountain landfill has seriously compromised the decision making process". This money was allegedly for County Service Area 51 ("CSA 51"), yet it went into the general fund. AR 20275, Tom Aiken, CSA 51 Chairman wrote a letter to Gary Kovall asking why MRC hadn't paid the second installment of the $440,000. AR 20277-8, response from Kovall, Senior Vice president and Counsel MRC, "As you know, the county did not approve a development agreement with MRC by January 1, of this year, and therefore our obligation to make the additional payment terminated". Next we'll look at an inner-office memo from Kovall to Rick Daniels, CEO/Pres. MRC, AR 20297-98, "The BLM District Director has stated his intention to the county that the BLM will not issue the ROD

until about the same time as the County Board of Supervisors vote to certify the EIR". This indicates the intention of BLM and the County to certify the environmental documents before they have been completed. The next paragraph, Gary Kovall says they will transmit the final document to BLM and County today, March 13. How can BLM and County know the document will be approved if they don't even have it yet? It is clear from this memorandum that the decision makers intend to minimize public input: "...staff against the recommendation of David Mares (Senior Planner for project) and RECON still intends to make several copies of the 'final EIR' available for public inspection prior to May and June, Planning Commission Hearing...I continue to work with county counsel and staff to try to turn this situation around or to minimize any of its potential negative impacts (regarding recirculation)". This is a violation of both CEQA and NEPA: CEQA Guidelines § 15201, "Public participation is an essential part of the CEQA process. Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal, consistent with its activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities". 40 CFR § 1500.2(d): encourage and facilitate public involvement in decisions which affect the quality of the human environment. Further evidence of the BOS abusing their discretion, the memo states, "The Board of Supervisors (Corky Larson) has indicated that the BOS action will be taken before the November elections". This is significant in the whole scheme because only one of the five supervisor's seat was up for the vote, Walter Abraham, who voted to approve the project as the "swing vote". Supervisor Buster ran and won the First District seat, with part of his platform being against the dump, Exhibit A. No wonder Mrs. Larson felt the urgency to vote on the dump before elections.

The regulations are explicit at 40 CFR § 1502.25(a): "To the fullest extent possible agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analysis and related

surveys and studies required by the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.), the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), The Endangered Species Act of 1973 (16 U.S.C. 1531 et. seq.) and other environmental review laws and executive orders". We want to emphasize that Gary's memo says the final does not include the F &WS consultation , and the regulations emphasize that the draft should include this information. The memo says there will be a 90 day F&WS review which will result in a no jeopardy opinion. If this were true, why did they not wait and include the F&WS Section 7 Consultation in their document, as the regulations instruct them to? What is the rush, we already see there's no landfill space shortage. It must be that November election deadline set by Supervisor Larson.

F. HAZARDOUS WASTE/LEVEL I CONTAMINANT SURVEY: The survey clearly indicates the presence of possible contaminants on public lands, see respondent's Tab 22. 40 CFR 1505.1(d) "requiring that relevant environmental documents, comments, and responses accompany the proposal through existing agency review processes so that agency officials use the statements in making decisions". Rural Landowners Association v. City Council 143 Cal. App 3d. at p. 1023, the Court held that where failure to comply with the law results in a subversion of the purposes of CEQA, by omitting information from the environmental review process, the error is prejudicial. The trial court may not exercise its independent judgement on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. The decision is for the discretion of the agency, and not the courts. Respondents confuse petitioner's concurrence that the Department of Toxic Substance Control, ("DTSC") performed a proper site inspection, and will be satisfied with the final report, (respondent's brief page 33, and see Exhibit I), with being satisfied that the legal requirements of CEQA have been met, thus the issue is not "moot". In fact analysis conducted by a certified California laboratory, Babcock & Sons, reveals detection of tolune, P-isopropyltoluene, n-Butylbenzene,

sec-Butylbenzene, napthalene, n-Propylbenzene, 1,2,4-Trimethylbenzene, and 1,3,5-Trimethylbenzene, Exhibit J, analysis of Eagle Creek ~~and Pine Tailings pond~~. It appears that Eagle Creek is part of the public lands to be exchanged. Surely, this must all be made part of the environmental documents to allow public comment to ensure the decision makers have the information to allow for a knowledgeable decision. Moreover, the BOS ordering the DTSC investigation is evidence that the EIR/EIS did not respond to the hazardous waste concerns of the petitioners during the comment period for the subject EIR, therefore the decision makers did not have enough substantial information with which to base a knowledgeable decision. The subject EIR should be remanded back to the BOS, for this and other shortcomings as outlined in our Petition, Opening Brief, and Reply to Respondent's Brief.

G. <u>THE EIR IS BEING USED TO SUPPORT PROJECT INSTEAD OF ANALYZING IMPACTS</u> :

The County needs money! AR 10530 VOL 23, "...to County an 8% undivided interest, as tenants-in-common, of all its rights, title and interest in and to the air space..." The air space will be used to dispose garbage, which will generate income. That is not mitigation! County Environmental Health will be the lead agency (LEA) overseeing most of the operational aspects of the project, AR 7116 VOL 16. It is very clear that the County will receive money for trash deposited. It is unrealistic to expect the LEA to enforce compliance, especially if it causes closure or reduction of the dump, and cessation or diminution of the revenue stream to the County. (Seemingly, a conflict of interest). It is also clear to see why the County facilitated the EIR process-the sooner it starts (the dump), the sooner the County makes money. The BOS voted unanimously to prepare an EIR that determines the project poses no detrimental impacts to the area's water and determines that no other significant impacts occur, AR 12372-74 VOL 27, "...there can be absolutely zero contamination of the water table... there will be no truck haul other than incidental in nature, what I mean by 'incidental' truck haul trash from Lake Tamarisk/Desert Center". These promises

were made over and over again, but as it turns out, they are mere words on a piece of paper. Yet the facts show inevitable water contamination and significant negative impacts to our air and water supply. Mrs. Larson made these promises, repeatedly, in the form letters in the AR : Vol 27 pages, 12368-12432, 12488-12521, 12526-12601, 12631-12749, Vol 28 pages, 12821-13070, 13238-13283, Vol 29 pages, 13385-13393, 13438-13656, 13737-14035, and Vol 30 pages, 14334-14411, 14413-14433, 14464-14517. Due to the expense in copying, we will not include the above cited AR pages with this brief.

There can be no 100% guarantee that leachate will not escape from the synthetic membrane, (FML, Flexible Membrane Liners), AR 8777. In fact MRC/BFI were extremely misleading in regards to FML's. AR 2510, "...the polymers that were discussed and first grade compounds based on these polymers should maintain their integrity in landfill environments for considerable lengths of time, probably in terms of hundreds of years...". While the EIR quotes this paragraph, they fail to quote the next - AR 18908-9, "Nevertheless, when these polymers or compounds are used in products as FML's, (Flexible Membrane Liners), drainage nets, geotextiles, and pipe are subject to mechanical and combined mechanical and chemical stresses which may cause deterioration of some of the important property of these polymeric products in shorter terms...the combines mechanical and chemical stresses under which the liner system functions may cause cracking and breaking of the components due to environmental stress-cracking or possibly to mechanical fatigue under long service...and seams of FML's continue to be an area of concern, as none of the test methods truly assess the effects of long-term exposure in the landfills...clogging of drainage and detection systems continue to present a problem. The clogging can be by biological clogging due to growth or sedimentation or through precipitation of dissolved constituents." So, if we use the true content of the study referenced in the EIR, we see that releases into the groundwater will occur sooner than we are led to believe. When the FML's degrade and fail over time, all we have left

is remediation which consist of pumping an already seriously overdrafted aquifer, AR 5892 Vol 13. Pumping concedes contamination. The respondents apparently do not care what the impacts of the project are.

If this information had not been withheld from the BOS, would that have changed their vote? Regardless, there are significant negative air quality impacts, there is a significant impact to water supply, and the train will pass 12 times for trash, and an unknown amount of times for mining and recyclables, a day through the Chickwalla Bench Area of Critical Environmental Concern. Yet all the promises of a clean EIR and no significant environmental impacts or the project is dead, were replaced by the promise of a million dollar golden egg.

VI. **CONCLUSION** : Based on the foregoing, it is respectfully submitted that the Court should issue a writ mandating that the certification of the EIR and all County approvals for the project in question be voided, and that the project not proceed unless and until a legally adequate EIR is prepared and the project is reapproved based upon such an EIR.

DATED : MAY 5 , 1994

Respectfully Submitted,

LAURNECE R. CHARPIED
PETITIONER IN PRO PER

DONNA J. CHARPIED
PETITIONER IN PRO PER

VERIFICATION

STATE OF CALIFORNIA, COUNTY OF

I have read the foregoing _____ and know its contents.

☒ CHECK APPLICABLE PARAGRAPHS

☐ I am a party to this action. The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief, and as to those matters I believe them to be true.

☐ I am ☐ an Officer ☐ a partner _____ ☐ a _____ of _____ a party to this action, and am authorized to make this verification for and on its behalf, and I make this verification for that reason. ☐ I am informed and believe and on that ground allege that the matters stated in the foregoing document are true. ☐ The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief, and as to those matters I believe them to be true.

☐ I am one of the attorneys for _____, a party to this action. Such party is absent from the county of aforesaid where such attorneys have their offices, and I make this verification for and on behalf of that party for that reason. I am informed and believe and on that ground allege that the matters stated in the foregoing document are true.

Executed on _____, 19____, at _____, California.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

_____ Type or Print Name

_____ Signature

PROOF OF SERVICE

1013a (3) CCP Revised 5/1/88

STATE OF CALIFORNIA, COUNTY OF RIVERSIDE

I am employed in the county of RIVERSIDE, State of California

I am over the age of 18 and not a party to the within action; my business address is: 26660 Greenvale WAY DESERT CENTER CA 92239

On MAY, 1994, I served the foregoing document described as PETITIONER'S REPLY BRIEF TO RESPONDENTS COUNTY OF RIVERSIDE ET AL, AND REAL PARTIES IN INTEREST IN OPPOSITION OF LAURENCE AND DONNA CHARPIED PETITION, PERTINENT PAGES FROM ADMINISTRATIVE RECORD, AND LIST OF EXHIBITS on THE INTERESTED PARTIES in this action

☒ by placing the true copies thereof enclosed in sealed envelopes addressed as stated on the attached mailing list:

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☒ (State) I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

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Type or Print Name

Steven Smiley
Signature

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CHARPIED v COUNTY OF RIVERSIDE, et al.;
SAN DIEGO SUPERIOR COURT CASE No. 663033

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More than a year later, on July 26, 1982, the EPA again put its opinions into the *Federal Register*, emphasizing that all landfills will inevitably leak:

"A liner is a barrier technology that prevents or greatly restricts migration of liquids into the ground. No liner, however, can keep all liquids out of the ground for all time. Eventually liners will either degrade, tear, or crack and will allow liquids to migrate out of the unit." [pg. 32284]

"Some have argued that liners are devices that provide a perpetual seal against any migration from a waste management unit. EPA has concluded that the more reasonable assumption, based on what is known about the pressures placed on liners over time, is that any liner will begin to leak eventually." [pgs. 32284-32285].

In the *Federal Register* May 26, 1981, pgs. 28314 through 28328), the EPA argued forcefully that all landfills will eventually leak. Another EPA quote:

"Many organic constituents are stable (degrade very slowly); other hazardous constituents (e.g., toxic metals) never degrade. Yet the existing technology for disposing of hazardous wastes on or in the land cannot confidently isolate these wastes from the environment forever.

"Since disposing of hazardous wastes in or on the land inevitable [inevitably?] results in the release of hazardous constituents to the environment at some time, any land disposal facility creates some risk." [pg. 28315]

EPA went on to estimate that the duration of the hazard from a landfill would be "many thousands of years." [pg. 28315] And the Agency said, "The longer one wishes to contain waste, the more difficult the task becomes. Synthetic liners and caps will degrade; soil liners and caps may erode and crack.....EPA is not aware of any field data showing successful long-term containment of waste at facilities which have not been maintained over time." [pg. 28324]

"Ultimately, waste reduction and re- source recovery probably provide the best alternative to land disposal," said the EPA [pg. 28325], though it has never begun any programs to make this happen.

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Providing news and resources to the Movement for Environmental Justice -- August 10, 1987

EPA SAYS ALL LANDFILLS LEAK, EVEN THOSE USING BEST AVAILABLE LINERS

People who are enthusiastic about garbage incinerators often fail to mention that every incinerator has a landfill associated with it. The ash left over from incineration needs to be landfilled, and the ash is toxic. Some engineers (especially those employed to promote garbage incinerators) try to argue that the toxic constituents of the ash will remain safely in the landfill "forever." But this is a flawed view: the weight of evidence and opinion in the technical world does not agree with this argument. On the contrary, even the U.S. Environmental Protection Agency says that all landfills will leak. The agency has published this opinion on many occasions in the *Federal Register*. But before we look at the EPA's reasons for believing all landfills will leak, let's look at the way landfills are constructed:

A landfill is a carefully-engineered depression in the ground (or built on top of the ground, resembling a football stadium) into which wastes are put. The intention is to avoid any hydraulic [water-related] connection between the wastes and the natural environment. To achieve this goal, there are four important parts of all landfills: a bottom liner, a leachate collection system, a cover, and the natural hydrogeologic setting (the earth).

The hydrogeologic setting can be selected to slow the entry of wastes into the natural environment. The other three components must be engineered. The bottom liner can be one or more layers of clay or a synthetic flexible membrane liner [FML], for example, a sheet of plastic; the liner effectively creates a bathtub in the ground. The leachate collection system consists of sloping the sides of the landfill and putting pipes in the lowest places, to pump out contaminated water and other fluids (leachate) as they accumulate; the pumped leachate is treated at a wastewater treatment plant (and the solids removed from the leachate during this step are returned to the landfill, or are sent to some other landfill). The cover or cap will consist of several sloped layers of clay or FML (to prevent rain from intruding), overlain by a very permeable layer of sandy or gravely soil, overlain by topsoil in which vegetation can root (to stabilize the underlying layers of the cap).

Each of these components is critical to success. If the bottom liner fails, wastes will migrate directly into the environment. If leachate collection pipes clog up and leachate remains in the landfill, fluids can build up in the bathtub; the resulting liquid pressure becomes the main force driving waste out the bottom of the landfill when the bottom liner fails. If the cover (cap) is not maintained, rain will enter the landfill, resulting in buildup of leachate to the point where the bathtub overflows its sides and wastes enter the environment.

In the *Federal Register* Feb. 5, 1981, the EPA first stated its opinion that all landfills will eventually leak:

"There is good theoretical and empirical evidence that the hazardous constituents that are placed in land disposal facilities very likely will migrate from the facility into the broader environment. This may occur several years, even many decades, after placement of the waste in the facility, but data and scientific prediction indicate that, in most cases, even with the application of best available land disposal technology, it will occur eventually." [pg. 11128]

"Manmade permeable materials that might be used for liners or covers (e.g., membrane liners or other materials) are subject to eventual deterioration, and although this might not occur for 10, 20 or more years, it eventually occurs and, when it does, leachate will migrate out of the facility." [pg. 11128]

"Unfortunately, at the present time, it is not technologically and institutionally possible to contain wastes and constituents forever or for the long time periods that may be necessary to allow adequate degradation to be achieved." [pg. 11129]

"Consequently, the regulation of hazardous waste land disposal facilities must proceed from the assumption that migration of hazardous wastes and their constituents and by-products from a land disposal facility will inevitably occur." [pg. 11129]

Exhibit 2

WALL STREET JOURNAL.

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Exhibit Y

ITION TUESDAY, DECEMBER 3, 1991 BEAUMONT, TEXAS

Economics of Trash

Some Big Waste Firms Pay Some Tiny Towns Little for Dump Sites

What Localities Get Depends On Their Bargaining Skill, And Fees Vary Widely

Landfills' Fat Profit Margins

By JEFF BAILEY
Staff Reporter of THE WALL STREET JOURNAL

Two years ago, Waste Management Inc. won the hearts of people in Mobile, Ariz.

When the tiny desert town approved construction of a 640-acre garbage dump, the big trash hauler showed its appreciation by donating a $17,500 school air-conditioning system, a two-trailer community center and $5,000 for camp scholarships. It also threw a big Christmas party.

"They go out of their way to help," says Jerry Begalman, the administrator of Mobile's 25-student school district. "I'd love to have another half-dozen Waste Managements here."

Actually, one should have been plenty. For what Mr. Begalman and other residents of Mobile never realized is that the town might have got millions of dollars from Waste Management.

Secret Arrangements

The nation's garbage industry, which is dominated by Waste Management and Browning-Ferris Industries Inc., frequently agrees to pay local communities handsome "host fees" in return for allowing dumps or, as the industry calls them, landfills. But these arrangements are usually kept secret. The secrecy helps the companies because some towns and counties are shrewder negotiators than others, and a few, such as Mobile, don't even know to ask about fees at all.

The resulting disparities are huge, in contrast to the modest gifts to Mobile, Riverside County, Calif., arranged more than $10 million in annual host fees from Western Waste Industries for a planned 1,020-acre dump expansion.

The industry acknowledges its desire to keep host fees quiet—not because it views them as questionable but because publicity could cost the companies a lot of money. "Your advantage, if you have any in the marketplace, is your ability to gauge the market and price yourself accordingly," a Browning-Ferris spokesman says. A Waste Management official says host fees are "not something we want to discuss."

Difficult Comparisons

The industry also says that its compensation arrangements with communities are often complex and that comparing the economics of one dump site to another can be difficult or unfair. The National Solid Waste Management Association doesn't collect data on host fees, a spokesman says, because "our members wouldn't appreciate it." And though the Environmental Protection Agency issues voluminous technical rules on dumps, it offers little financial guidance to local officials.

Yet because new federal and state environmental laws will force the closing of about half the nation's garbage dumps in the next few years, more communities than ever before are under pressure to build new ones. To the small, out-of-the-way towns typically targeted for haulers' sales pitches, a favorable fee deal could make the difference between continued poverty and relative affluence. But many either lack good information or can't afford the lawyers and consultants needed to help get a good deal.

"Waste dumpers look for powerless communities," says Luke Cole, a lawyer at the California Rural Legal Assistance Foundation who fights siting of dumps and incinerators. "They look for desperate areas and then take advantage." The companies deny doing that but concede that many dumps are being sited near small towns. They say it's because that's where space is likely to be available.

Scouring the Countryside

At any one time, both Waste Management, based in Oak Brook, Ill., and Browning-Ferris, of Houston, have dozens of salesmen out in the countryside trying to get communities to accept dumps. In some initial discussions, the subject of host fees doesn't even come up. When it does, companies usually begin with a low-ball offer of, say, $1 a ton, although they might be willing to pay five times that. Local officials inexperienced in landfill economics may see this as a windfall and not ask for more.

Large municipalities experienced in running their own big dumps do better. Robert Nelson, the Riverside County trash chief, says he often hears from companies seeking to build dumps in the desert east of Los Angeles. "They all want to stick to a dollar or so a ton" in host fees, he says. "We just say no."

With a 50-person engineering and administrative staff to analyze proposals, Mr. Nelson got $6 to $7 a ton from Western Waste for one proposed disposal site and more than $1 a ton on a new Browning-Ferris dump that would be the nation's biggest. Together, the two could bring the county more than $10 million a year.

The county justifies such hefty fees on the ground that they compensate it for putting up with a dump that takes trash from other areas. Scores of trucks arriving every day can clog traffic and bring dust, odor and vermin. And environmental damage due to hazardous materials improperly dumped or design flaws is possible.

Despite host fees, moreover, garbage dumps are so profitable that the companies can earn big returns. Although they don't disclose those profits, industry insiders and knowledgeable municipal officials say gross margins—before taxes and corporate overhead—typically run 50% or more of revenue at big dumps. Sanifill Inc., a Houston company that gets all its revenue from dumps, had profits, before taxes and overhead, of $24 million last year on revenue of just $39 million—a 61.5% margin.

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Economics of Trash: Some Tiny Towns Get Little for Dump Sites

Continued From First Page

At one dump, Chambers Development Co. pays Charles City County, Va., a poor farming area, a host fee running about $4.2 million a year. The Pittsburgh-based company reaps a gross margin of 40% to 50% at the dump.

Dumps are profitable both because of a shortage of disposal sites and because of their unique economics. Although every site is different and costs vary, Waste Management says permit and construction costs generally run between $100,000 and $500,000 an acre. But because a dump is built in small sections, with revenue coming in as each section is filled, much of the investment occurs after the money has started rolling in.

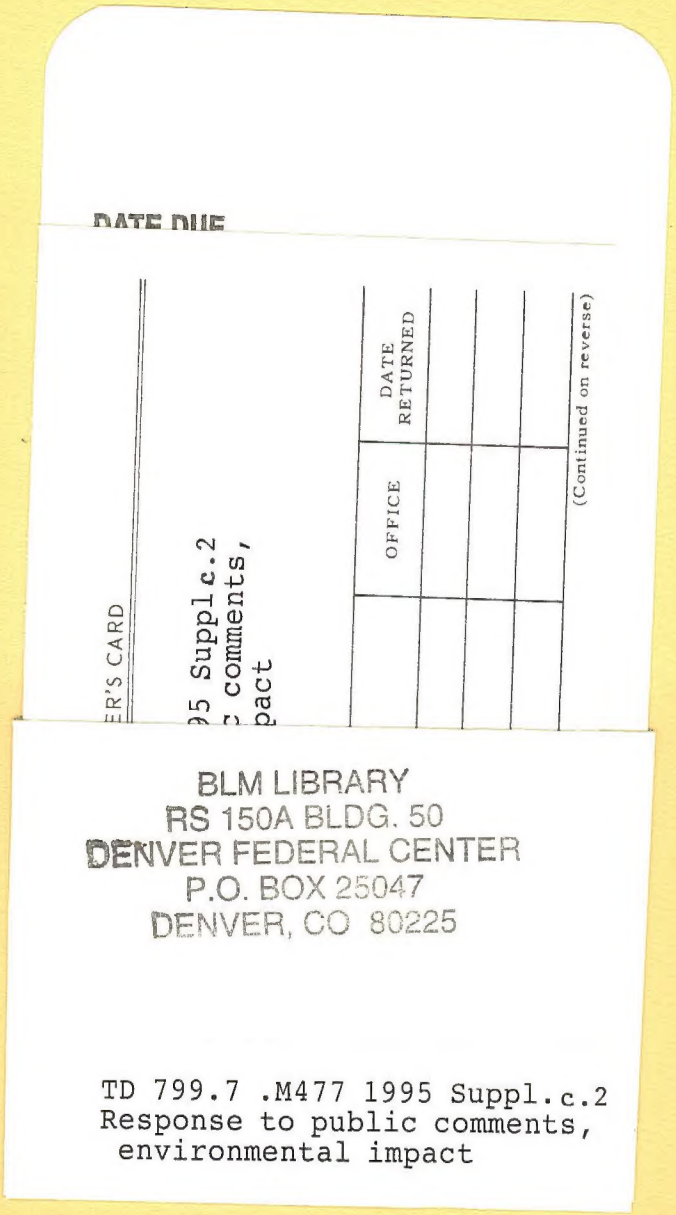
In addition, operating expenses are a minor fraction of fixed costs; so profits rise rapidly as disposal volume increases. Tom J. Fatjo Jr., a former chairman of Browning-Ferris, says a dump can earn gross profit of 15% at 1,000 tons of trash a day but 60% at 4,000 tons a day.

And if the operators can hold down the local community's share of the action, their profits soar. At Waste Management's Mobile, Ariz., dump, preparing the 480 acres that will actually hold garbage will cost a maximum of $240 million in today's dollars. But at current fees, those acres, with a capacity of 96 million tons, will bring in $2.26 billion over the dump's 50-year life. And because Mobile didn't negotiate any fees for itself, Waste Management will keep all the revenue.

The lack of a host fee, confides Jim Teter, a Waste Management vice president, "is unusual in this day and age."

But many other municipal officials are also at a disadvantage, finding it hard to get financial information on which to base decisions, says Steve Cramer, a Minneapolis councilman who heads the National League of Cities' task force on garbage issues. Garbage has joined crime, taxes and schools "on that list of issues that drive local officials nuts," he adds.

Waste Management's reaction to a Kentucky law that lets communities take a percentage of a dump's revenue, instead of a per-ton amount, shows how jealously the companies guard their financial data. "Our biggest beef isn't the amount" of money, says Don Drummond, Waste Management's dump manager in Estill County, Ky. "They want us to open our books."

Other communities have known enough to ask yet failed to drive a hard bargain. Gilliam County, Ore., a poor farming and ranching area 150 miles east of Portland,

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